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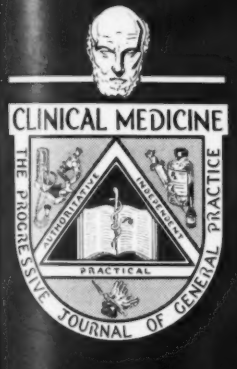

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APRIL 1941

VOLUME 48 NUMBER 4

–prolonged antacid action
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Trinesium, the Abbott brand of magnesium trisilicate, has become an outstanding aid in the treatment of peptic ulcer and control of hyperacidity. In Milk of Trinesium, the substance is provided in pleasant form as a homogeneous, aqueous suspension in dilute aluminum hydroxide gel.

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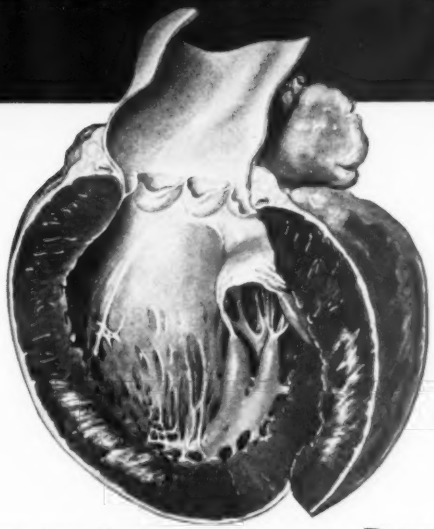

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ROBERT LAWSON TAIT, L.R.C.S.

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Clinical Medicine

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* Editorial *

Lawson Tait

MEDICAL clinicians rarely achieve fame and fortune unless they have a pleasing personality, courteous behavior and understanding and sympathetic hearts, but a few surgeons, by reason of the cleverness of their strategy and the dexterity of their technic, have made great names for themselves, in spite of their lack of all the graces of body, heart, and mind that make social intercourse a pleasure. Of such was Lawson Tait, "the storm-petrel of modern gynecology."

Born in 1845, in Edinburgh, Scotland, it was commonly reported (and never denied by either of the persons directly interested; in fact, Tait himself rather boasted of it) that he was the "natural" son of Sir James Young Simpson, the "Father of Modern Obstetrics." He lived in Simpson's house and, when he was a freshman medical student, was assisting the most famous and sought-after obstetrician and gynecologist in all Britain in many of his operations. Moreover, he resembled Simpson, in face and figure, much more closely than did that illustrious gentleman's legal son.

Even in his student years, Tait was so "original" that he was unable to pass the required examinations at the University, so the only degrees he ever received were honorary titles, bestowed by American institutions. He did, however, obtain a license to practice, from the Royal College of Surgeons, and at the age of 25, established himself at Birmingham, England, where, in spite of his domineering, coarse, and uncouth manners and his overweening self-conceit, he was soon recognized as one of the outstanding gynecologists of his time. It was said of him that his technic was so remarkable that he could make his instruments think.

After Ephraim McDowell had performed the first ovariectomy, it was Tait who introduced it in England and removed many normal ovaries, in those pre-endocrinology days. It was he who performed the first successful operation for a ruptured ectopic pregnancy, the first removal of an unruptured tubal pregnancy, and the first laparotomy for intraperitoneal hemorrhage; who perfected a plastic operation for repair of the damaged perineum *(Tait's operation);* who introduced hepatotomy; who formulated *Tait's Law* ("In every case of pelvic or abdominal disease in which life is endangered or the health ruined, an exploratory laparotomy should be made, except when the disease is known to be malignant"); and who made many other major and minor improvements in the surgical practice of his day.

Much of Tait's surgical success was, no doubt, due to the fact that he scrubbed his hands thoroughly, with soap and hot water, before operating, although he boisterously ridiculed Pasteur's discoveries and Lister's application of them.

His remarkable career came to an end in 1899, so that he was contemporary with many physicians now in practice, but he seems to have left little or no written record of his professional exploits, and his record as a *human being* is so unlovely

that it seems possible that his fame may not endure through another generation, except in a few eponymic terms.

It is almost a definition of a gentleman to say that he is one who never inflicts pain intentionally.—JAMES CARDINAL NEWMAN.

Diabetes

THE number of diabetic patients in this country is steadily increasing, due to the facts that more people are living into the "diabetic age" period, and that patients suffering with diabetes are living longer than they formerly did, thanks to the relatively modern knowledge of the proper management of this disease. The Metropolitan Life Insurance estimates that, by 1950, there will be a million such patients in the United States; and only a very few of these will require extended hospital treatment.

The significance of these conditions, for specialists in family practice, is clear. Since the vast majority of diabetic patients must be treated in their normal home surroundings, under the supervision of their family physicians, every general clinician must be thoroughly familiar with the *modern* (and most successful) methods for the diagnosis and management of these cases, so that he can give his diabetic patients intelligent advice as to their way of living and their treatment, and watch for and prevent the development of the *complications* which are becoming a more and more important factor in the death rate of this class of our population.

Every physician in active practice must realize that, while all people who have sugar in the urine must be *tentatively considered* to be diabetic, about 13 percent of them are *not* so. And he must know how to find out *which* of the glycosuric patients are in that class and what ails them.

He must realize that *diet is basic*, and a lifetime proposition, and must learn the fundamentals of dietetics, and then *teach them to his diabetic patients*, so that they can regulate their own daily lives. Along with this, he must learn (and teach) the details of the indications for and administration of protamine-zinc and "regular" insulin.

He must know (and teach) the *premonitory* and actual symptoms of *diabetic coma* and *insulin shock*, and the emergency methods for controlling them until he (or some other physician) can take charge of the case; as well as knowing how to proceed after he *has* taken charge. Moreover, he must be aware of and explain to his patients the *special hazards* to which diabetics are exposed, and advise them as to how these dangers may be minimized, and met when they do arise.

Incidentally, one of the newest methods for protecting the diabetic patient from well-meant but ill-advised assistance, if he loses consciousness from any cause (including accidents) away from home, is the suggested *Identification Card* (shown here),* which every such patient should carry at all times when he is among strangers.

I AM A DIABETIC

Name RICHARD B. SMITH Telephone No. REPUBLIC 1234

Street 100 MAIN STREET City PITTSBURGH, PA.

MY DIET: 160 C. 70 P. 80 F. Insulin units 4 Regular or crystalline 32 Protamine

SPECIMEN

IF I AM FOUND ILL . . . and . . . if sugar, orange juice, or sweetened foods do not cause definite improvement in 15 minutes,

PLEASE CALL Dr. JOSEPH JOHNSTON, whose telephone number is REPUBLIC 2600, or send me immediately to a hospital

He must understand the hereditary and familial factors in diabetes; the possibilities of *prevention* of the disease in susceptible individuals; and the methods for obviating or minimizing the special dangers to which diabetics are exposed in connection with surgical procedures (including childbirth), so that he can give sound advice regarding marriages, pregnancies, and operations.

This is the *minimum* information about diabetes which every general clinician should possess, and to which he should add *steadily*, and as rapidly as possible. The literature on this disease (including manuals of instruction for the use of patients) is now voluminous, explicit, detailed, and readily available, so that there is no excuse for the medical man who is ignorant of these highly important matters. Those whose knowledge is not fully up to date, will be wise if they invest a few dollars in a good, reliable textbook on the subject and in the midnight kilowatts which may be required in mastering its contents.

A successful career in the practice of medicine depends upon getting each individual patient's point of view.—CHEVALIER JACKSON.

The Seminar Reviving

THE report, published a couple of months ago, that the *Seminar* was pining away from a deficiency disorder, has brought forth a supply of pabulum that bids fair to revive it and make it stronger than it has been for some time.

In fact, the response from many of our readers, saying how much they enjoy this department and how helpful it is to them, has been cheering, and we hope that this enthusiasm will not subside as time passes. A number sent in problems or discussions or both, so that the April issue will begin to look like old times; but we need a *steady flow* of discussions, *every month*, full of the solid nutriment of real enthusiasm and the life-giving vitamins of sound clinical ideas, to keep the patient improving steadily.

*Copies of this card, and of a pocket-size diet card, can be obtained from the Welfare Division, Metropolitan Life Insurance Co., New York, N. Y.

Several said that they hesitated to "stick their necks out" by discussing the problems, for fear some of their confreres might laugh at their mistakes. This need worry none of you, for there are few, if any, who are such smart diagnosticians and therapists that they never make mistakes. "Let him among you that is without sin cast the first stone."

Had you rather make a mistake on someone else's patient, reported on paper, for whose welfare *you are not responsible*, and have your professional brothers see it, or on one of *your own* patients, for whom you *are* responsible, where nobody but *you* would know it, remembering that *you* cannot escape from that knowledge or run away from yourself?

If we make mistakes on paper, where no life is at stake, it shows us our weak spots and gives us a chance to *strengthen* them before they cause some patient suffering or death.

Here is a real *postgraduate course*, made available to you at no extra cost whatever. Is it not rather foolish to neglect such an opportunity for obtaining the advice and counsel of other physicians who may be able to help you, and of giving them the help they need?

We feel safe in saying that any active clinician who will *study* all these problems and send in a discussion *every month*, will improve his professional ability from ten to fifty percent in one year.

Our patient is reviving, for the time being, but *you* are still responsible for its return to full strength and for the maintenance and augmentation of its efficiency and helpfulness.

NEXT MONTH

Dr. H. I. Biegeleisen, of New York City, will discuss, with illustrations, the degrees of military disability caused by fascial deficiencies, including varicose veins, hemorrhoids, hernia, hydrocele, and varicocele.

Dr. A. H. Voss, of Odem, Tex., will report his experiences in treating arachnidism due to bites of the "black widow" spider, stressing the use of Latrodectus antivenin.

The second part of the article on x-ray diagnosis of bone disorders, by Drs. Goldhamer and Swanberg, will appear.

COMING SOON

"Osteitis Deformans (Paget's Disease) with Maxillary Involvement," by Charles C. Verstandig, M.D., Ft. Devens, Mass., and C. B. Sanders, M.D., F.A.C.P., and H. F. Gillard, D.D.S., Houston, Tex.

"Rapid Breast Changes from Stilboestrol in a Woman with Complete Uterine Aplasia," by Abner I. Weisman, M.D., New York City.

The reward for a thing well done, is to have done it.—R. W. Emerson.

The Crusade Against Cancer

For decades we have known that cancer was a cruel and ruthless killer, an enemy of homes and of human happiness. It has taken men and women in their prime—leaders in art, in science, and in industry. It has broken up families and robbed children of their parents. For years it has been a menace, while we allowed it to breed fear and discouragement.

Because other diseases were less vigorous and menacing, and because they provided us with less opposition in diagnosis and treatment, we have attacked them first and with more optimism. One after another they have been checked or beaten. Now, however, we are finally aroused as a people and have taken our stand as regard cancer. No longer can it be allowed to proceed unchecked. We know that it is vulnerable. It is no mystical being that can defy the assault of knowledge and science, activated by courage and idealism. Some, with special training, knew this for some time, however, before it was possible to enlist and use the will of the general public in the fight.

The women of America have made this possible. Rising as volunteers, to participate in the organization of the Women's Field Army Against Cancer (a part of the work of the American Society for the Control of Cancer) they have done wonders. They have spread knowledge of the signs and symptoms that may mean cancer to millions of people, who have received this information without cost. They have organized meetings, which have been addressed by selected medical speakers. Under proper supervision, they have aided indigent patients to obtain diagnosis and treatment. They have removed the paralyzing fear of cancer and transformed the whole battle front against cancer, from one where isolated raids were being made, to a general advance.

That is why it is not only your duty but your privilege to take part in the fight against cancer. To shirk that task is a poor prospect for your ability to meet the sort of challenge that life will force upon all of us in the immediate future. To meet the call cheerfully and intelligently will help you to win other battles to come. The need is clear. Enlist and serve!

★ Leading Articles ★

Difficulties in the Interpretation of Bone Roentgenograms*

Part I

By

KARL GOLDHAMER, M.D., Quincy, Ill.
Associate Roentgenologist, St. Mary's Hospital and Quincy X-Ray & Radium Laboratories
and
HAROLD SWANBERG, M.D., F.A.C.P., Quincy, Ill.
Editor, *Mississippi Valley Medical Journal and Radiologic Review*
Director, Quincy X-Ray and Radium Laboratories

Many physicians have now installed apparatus for doing diagnostic roentgenography, but unless they have a good deal of training in the technic of this method, they are not getting full value from it, and may be making serious mistakes. In this article, two competent radiologists give practical pointers for avoiding pitfalls and improving service.

ROENTGEN-RAY diagnosis, being a relatively new branch of medicine, has many pitfalls, which those with limited experience must learn to avoid. It is, therefore, important that the experienced roentgenologist reveal some of these "pitfalls," as otherwise this method of diagnosis may be unjustly criticized.

X-Ray diagnosis should be independent of the reports of other types of examination. Only the experienced roentgenologist, who never reports more than he can see and prove, is the one who makes relatively few incorrect diagnoses. An incomplete report, however, may cause more confusion than no report at all.

It frequently occurs that normal osseous formations are interpreted as pathologic signs, for example, the various epiphyses, with their bony nuclei, are often mistaken for fractures. In other instances certain physiologic calcifications may be mistaken for pathologic or post-traumatic changes.

It is necessary to differentiate between negative and positive errors in x-ray diagnosis. The first occur when the observer fails to recognize a pathologic or traumatic change that is shown in the roentgenogram, or would be shown if properly taken films were secured. The only remedy to correct this is experience and technical thoroughness.

The second or positive error is the more common, and consists of interpreting a normal condition or stage of development of an organ or bone as a pathologic or traumatic alteration. It is, therefore, necessary to know the normal roentgenographic appearance of all the anatomic parts, from birth to senility, and to be familiar with the varieties in development, the changes that come with age, and the appearance of pathologic processes. The remedy to correct such errors in x-ray diagnosis is a thorough course of study in x-ray anatomy, and close collaboration with an experienced roentgenologist.

Change in Appearance Caused by Change in Position.

How changes in position may result in errors of interpretation, is well illustrated in the wrist. In radial flexion (Fig. 1A), the scaphoid appears as a short bone crossed by a sharp line, corresponding to the normal tuberosity of this bone. This line is often diagnosed as a transverse fracture of the scaphoid. Complete absence of this transverse line (Fig. 1B) is shown when the roentgenogram is made with the wrist in ulnar abduction. In this position the long axis of the scaphoid is situated nearly parallel to the film, and the shadow of the bone appears longer. It is, therefore, advisable to take roentgenograms in marked ulnar abduction if a fracture of the scaphoid is suspected. A lateral view of the carpus is also helpful in making a diagnosis of scaphoid fracture.

Epiphyseal Lines

It is well known that epiphyseal lines may simulate a fracture on the roentgenogram. The epiphyseal line of the olecranon may cause such a mistake, as its calcification begins close to the joint; thus there is one critical stage when only the dorsal part of this epiphyseal line is still cartilaginous and the roentgenogram shows an interruption in the continuity of bone, simulating a green-stick fracture (Fig. 2). By experience we learn that, in a fracture, the line is sharp and outlined straight on the roentgenogram, while the epiphyses always show slightly thickened (calcified) margins. This differentiation, however, can be easily made only in recent fractures. If the fracture has taken place some weeks previously, with a relatively slight amount of callus formation, yet no union has occurred (pseudarthrosis), the danger of an incorrect diagnosis is great.

*This is the first installment of a two-part article. The second will appear in an early issue.

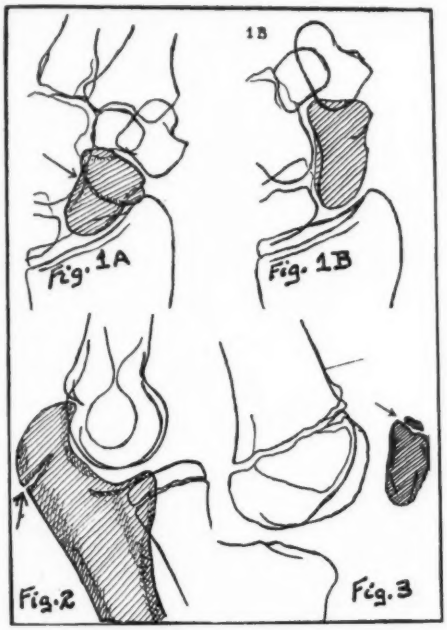

Fig. 1A: Wrist in radial flexion; shadow of scaphoid bone short and crossed by cortex of tuberosity (no fracture).
Fig. 1B: Wrist in ulnar flexion; scaphoid shadow longer and without transverse line caused by tuberosity.
Fig. 2: Incompletely calcified epiphyseal line of olecranon process of ulna, simulating a green-stick fracture.
Fig. 3: Isolated upper part of nucleus of patella, simulating a chip-fracture.

The following suggestions are helpful in differentiating a fracture from an epiphyseal line:

1.—The margin of the epiphysis is thickened; that of a recent fracture shows no increased density.

2.—The course of the epiphyseal line is usually regular; that of a fracture usually irregular.

3.—The epiphyseal (and accessory) lines have a typical anatomic situation and appearance.

4.—The epiphyseal (and accessory) lines are developed symmetrically on both sides of the body. A roentgenogram of the opposite side usually gives valuable information.

Divided Epiphyseal Nuclei

Irregularity in the development of epiphyses may simulate a traumatic change. If an epiphysis is not evenly calcified, or if the roentgenogram reveals several bony nuclei, a fracture can easily be suspected. The favorite joints where the epiphyses have a tendency to be irregularly developed are the elbow and knee. Duplication of the bony nucleus of the patella (Fig. 3) can easily be taken for a chip fracture.

Errors in diagnosis, arising from divided epiphyseal nuclei, can usually be avoided by taking a roentgenogram of the opposite side, for comparative study. Irregularities in the calcification of the epiphyses are usually bilateral. If they are asymmetric, the differential diagnosis must be based on clinical signs, rather than roentgenologic evidence.

Supernumerary Bones

Supernumerary bones are, of course, variations in development and have little or no clinical importance.

An important variation in development, in the wrist region, is the "triangulare" bone, also known as the "intermedium antibrachii." It is located between the radius and ulna, on one side, and the semilunar and cuneiform on the other. If this osseous nucleus is large and dense enough, it is easily recognized as a supernumerary bone; when faintly developed and small (Fig. 4), the neighboring styloid process of the ulna is usually short, and it is difficult or impossible to differentiate it from an old fracture.

In the tarsal region there are several supernumerary bones which have some clinical importance. The tuberosity of the scaphoid (navicular) has a separate cartilaginous center, which normally fuses with the remainder of the bone. This center may persist throughout life, failing to fuse with the scaphoid proper, and is then known as the "accessory scaphoid" or "tibiale externum." This supernumerary bone may be small and entirely separate, or it may consist of two or three separate bony fragments.

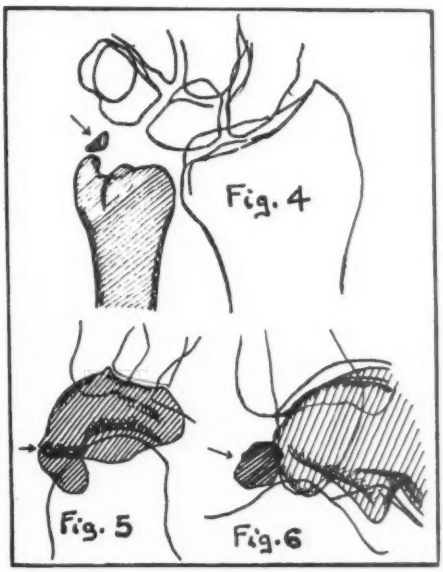

Fig. 4: Small "intermedium antibrachii," simulating a fracture.
Fig. 5: Large "tibiale externum," separated from the scaphoid by an irregular line closely resembling a fracture.
Fig. 6: An "os trigonum" or accessory astragalus is a common supernumerary bone of the ankle.

It would appear unlikely to interpret these supernumerary bony fragments, isolated from the tip of the scaphoid, as fracture fragments; however, such a mistake is relatively common.

It should be remembered that, when a "tibiale externum" is present, the tuberosity of the scaphoid is usually rounded, shorter, and shallower than normal. The circumstances are different if the tibiale externum exists as a large bony formation, close to the tuberosity of the scaphoid, and separated from it only by an irregular line of clearness (Fig. 5). In such an instance, a positive diagnosis of fracture is common. The straight and sharp

demarcation gives the impression of an old, not completely united fracture (pseudarthrosis). Usually such a type of supernumerary bone appears bilaterally, which affords an easy differential diagnosis. If, however, the variation is unilateral, a correct differential diagnosis may be impossible.

The posterior process of the astragalus (talus) consists of a medial and lateral tuberculum, and the lateral may give rise to misinterpretation. It develops from a separate nucleus, which normally fuses with the corpus of the astragalus; if it fails to fuse it is observed as a supernumerary bone, known as an "accessory astragalus" or "os trigonum" (Fig. 6). The rounded shape and its bilateral presence renders diagnosis easy, but if it is irregular and unilateral, a correct diagnosis may be difficult.

Identification of a supernumerary bone by x-ray examination alone may cause confusion. Even their bilateral, symmetrical occurrence is not an infallible diagnostic point, as a fracture of the posterior process of the astragalus on both sides may occur as the result of an accident (jumping on both heels).

Supernumerary bones may be unilateral, so a comparison with the opposite side is not always a reliable diagnostic measure. It is necessary, therefore, to rely more on the morphologic appearance. The outlines of a supernumerary bone are usually straight, sharp, and thickened (cortex-like); its course is regular and the margins separating the bone congruent; and displacement is never seen. If a supernumerary bone is fractured, the differential diagnosis from multiple supernumerary bones is sometimes difficult, if not impossible.

Sesamoid Bones

There are many regions of the body where sesamoid bones are commonly found.

In the soft tissues of the posterior part of the knee a large sesamoid bone is frequently present in the lateral tendon of the gastrocnemius muscle, and is known as the "fabella." This bony formation is easily recognized, but if it is duplicated a fracture might be interpreted (Fig. 7). If the sesamoid bone is irregular in shape it may also create the impression of being a bone fragment from a fracture.

A divided sesamoid bone occurs fairly frequently, and of course may simulate a fracture, especially in view of the fact that actual fractures of sesamoid bones do occur. The most frequently seen divided sesamoid bone is perhaps of the head of the first metatarsal bone (Fig. 8). Differentiation from fracture is relatively easy, because in a fracture, the fractured edges are usually straight and sharply defined.

The difference in the anatomic appearance between a sesamoid bone and a chip-fracture is generally so evident that a differential diagnosis can be made without difficulty. Sesamoid bones, as a rule, are regular and round in shape. The same morphologic condition is found when the sesamoid bone happens to be divided; the dividing line is straight, sharp, regular, and shows parallel margins.

A differential diagnosis from fracture is difficult when the borders of the sesamoid appear deformed and irregular. This change in shape is part of the attendant phenomenon of a deforming process in the immediate joint. In such instances, a divided sesamoid will truly simulate fracture. Knowledge of the typical location of sesamoids (and accessory sesamoids) and of their morphologic

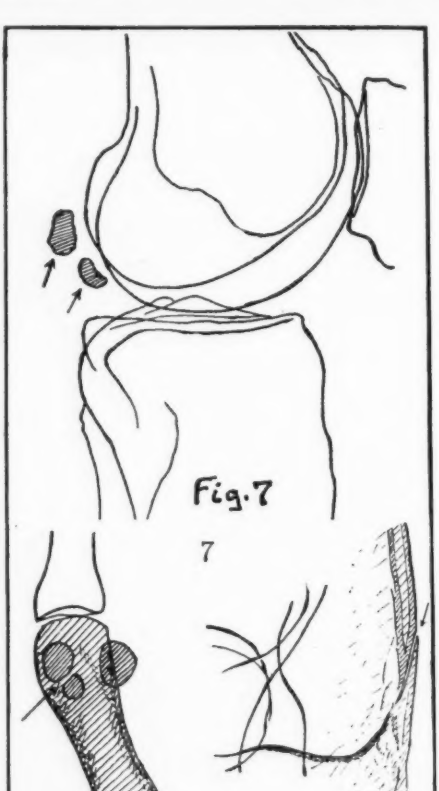

Fig. 7: A double "fabella"; the extra shadow might suggest a fracture.
Fig. 8: A divided medial sesamoid bone beneath the head of first metatarsal (not a fracture).
Fig. 9: The squamous suture of the temporal bone, when viewed sagittally, may simulate a fracture.

appearance will prevent misinterpretation. In doubtful cases, the clinical symptoms will certainly help supply a correct diagnosis.

Sutures of the Skull

The interpretation of the skull roentgenogram is difficult and the differentiation of normal from traumatic change requires much experience. The correct diagnosis of fracture of the skull is of eminent importance. Negative or positive errors of diagnosis may result in serious harm; in a negative sense, if we fail to recognize a fracture which actually exists; positively, if we interpret as a traumatic change, the normal condition of the bone or a variation in development. The positive errors are more frequently possible, especially if the clinical symptoms suggest a fracture.

One of the most frequent positive errors of interpretation occurs when the squamous suture of the temporal bone is viewed sagittally. In this position (Fig. 9), the suture is usually seen as a

split in the bone, and remains as such throughout life. In the same manner the frontomalar suture is often seen as a diastasis, which could easily be interpreted as a fracture. Also at the temporomalar suture (Fig. 10), slight separation of the bones, which frequently occurs, may be interpreted as a fracture. The importance of remembering

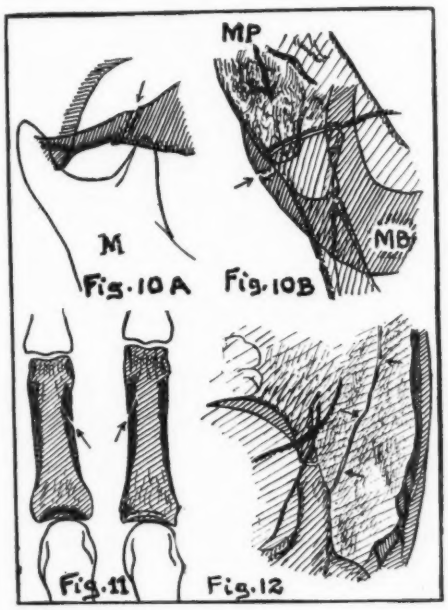

Fig. 10A: The temporomalar suture, in the lateral view, may be slightly separated, simulating a fracture (M—Mandible).
Fig. 10B: A similar condition may be seen in a sagittal view (MP—Mastoid process; MB—Malar bone).
Fig. 11: Nutrient canals of first phalanges of the hand may suggest fissure-fracture.
Fig. 12: A narrow, deep sulcus for the middle meningeal artery may suggest a fracture.

these normal sutural changes is emphasized by the fact that these regions are especially exposed to injury.

Misinterpretation of skull sutures can be avoided by observing the following anatomic signs:

1.—Accessory sutures do not extend over more than one bone; fracture lines often cross over two neighboring bones.

2.—Some sutures are normally dentate; the fracture line usually straight.

3.—The course of the sutures (also the accessory sutures) is well known and anatomically determined.

4.—The borderlines of the sutures frequently appear dense; the margins of a fracture do not show this sign.

5.—Comparison with the other side of the skull is very helpful in the differential diagnosis; using the stereoscopic method it is possible to avoid the bothering numerous, superimposed shadows; however, we must not disregard the fact that accessory sutures may be unilateral or solitary (in the midline).

Canals and Grooves for Blood Vessels

The most frequent misinterpretation of nutrient canals is probably in the long bones of the hands.

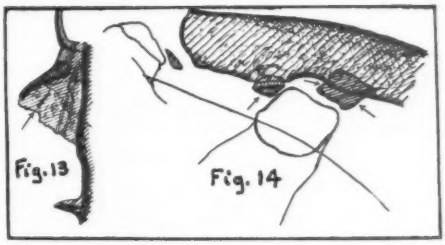

Fig. 13: The groove for the nasal nerve, on the nasal bone, is often mistaken for a fissure-fracture.
Fig. 14: A bony deposit in the coracoclavicular ligament suggests fracture fragments.

Nearly always, a very fine, hair-like line, running obliquely, can be recognized in the cortex of the metacarpal bones. Mistakes in interpretations will be avoided if it is remembered that these lines always diverge from one another in adjacent bones (Fig. 11). Only when a fracture is in the same region can these canals be interpreted as a double fracture. A similar formation, but usually more plainly developed, is sometimes seen in the iliac bones.

In the skull, the canals and sulci for blood vessels produce difficulties because of the complicated structure which the roentgenogram reveals. In the vault, the circumstances are simpler, nevertheless sometimes a canal for a diploic vein looks like the diastasis of a fracture.

It is difficult to make a correct diagnosis when the sulcus of the middle meningeal artery is relatively narrow and deep and builds a very sharp and straight line (Fig. 12). The same circumstance occurs in the region of the nasal bone. In the lateral view of this frequently injured part, very fine lines are frequently seen, which may suggest a fissure-fracture (Fig. 13); they are, however, the grooves for the nasal nerves.

To avoid anatomic errors, it is necessary that anatomic facts be recalled. There are five kinds of canals and grooves in the skull:

1.—Grooves for the middle meningeal artery.
2.—Grooves for the venous sinuses.
3.—Shallow grooves on the external surface of the calvarium, for the larger veins.
4.—Canals for the diploic veins.
5.—Canals for the emissary veins.

The following morphologic points of view should be observed:

1.—The canals and grooves for blood vessels show an anatomically fixed location and course (use the stereoscopic roentgenogram).

2.—Canals, as well as grooves containing the blood vessels, show a thickened outline.

3.—Displacement is never present.

Calcification of Ligaments

Calcification within ligaments is frequently harmless and is often visualized by chance. Within the coracoclavicular ligament (Fig. 14) two calcified areas are frequently seen, corresponding to the two parts of the ligament, the conoid and trapezoid portions. These calcifications frequently have a joined connection with the lateral end of the clavicle or with the coracoid process. This tendency occurs if this ligament is functionally overburdened. In our illustration, calcification is also present within the acromioclavicular articulation.

By keeping in mind the anatomic course of the

ligaments, it is not difficult to identify calcification in them. When the calcium deposit is not quite distinct and rather cloudy, it is easy to recognize it. When, however, it is sharply bordered, like bone, the diagnosis meets with difficulties; this is especially so because, after traumatic rupture of a ligament, as well as a chip-fracture, a secondary calcification of a hematoma may impress one as being a harmless calcium formation.

W.C.U. Building

(To be continued)

Back Pain and Neuritis

By
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Backache is no longer considered one of those curses which must be borne with as much fortitude as possible. Doctors are *doing* something about it! Dr. Billig has some rather novel, but apparently helpful and practical, ideas on the subject.

A STUDY of the incidence of backache in 200 women is presented in a recent book by Dr. Heinrich Martius[1], who is the director of the university gynecologic clinic in Goettingen, Germany. Somewhat less than one-third of his patients voluntarily complained of backache; more than one-third acknowledged such symptoms when questioned; and exactly one-third declared themselves free from back pains. It is my belief that the incidence of backache of such severity as to cause complaint in only two-thirds of his cases is conservative. Generally speaking, the percentage is often much higher.

The various factors considered by Martius in the production of back pains are the pelvic organs—displacements, endometriosis, infections, and tumors. He then proceeds to a study of the posture and physical constitutions of the women who complain of such pains, considered from the orthopedic standpoint. In this section the various diseases of the spinal column and spinal and pelvic joints are discussed, and the importance of properly performed roentgen-ray examinations is stressed. Martius reminds us that the architecture of the female body is significantly different from that of the male, because of woman's part in the propagation of the species, and he feels that, in general, backaches are largely an orthostatic symptom or complex.

Until recently, our difficulty in handling these patients has been due to the fact that we have felt that their problem was either medical or orthopedic exclusively, and not a combination of both. The body must be integrated, as a whole, and it must function as a whole, adapting itself to external as well as internal stimuli. In the past, the general clinician has been so engrossed with the effects of visceral dysfunction and their outward manifestations that he has neglected the skeletal structures, with their disturbances reflected inward, on the viscera. On the other hand, the orthopedist has been too much concerned with skeletal abnormalities and not enough with the visceral disturbances that may either initiate these skeletal changes, or certainly aggravate them when they are initiated independently.

Neville T. Ussher[2] has recently presented a fine discussion of the **"viscerospinal syndrome"** and the conceptions of visceromotor and sensory changes, in relation to deranged spinal structures. Two chief considerations, he says, have been stressed: (1) Cutaneous hyperesthesia and tenderness, in the distribution of the spinal segment involved; and (2) muscle spasm or atrophy of muscle groups in the somatic periphery related to this segment. To these concepts may be added a third, or visceral, component.

Ussher coined the term "viscerospinal syndrome" and presented many typical cases, in which symptoms of appendicitis, gallbladder disease, ureteral colic, or other manifestations of visceral disease were apparently relieved by correction of a spinal curvature or of the associated "myositis." He has also demonstrated that gallbladder colic and cardiospasm were shown, in some instances, to be related to "myositis" in the middle dorsal area. Again, symptoms of appendicitis or pelvic inflammation were shown to be definitely associated with irritation of the lower dorsal segments. In these cases he found that physical therapy and postural correction were sufficient, in most instances, to completely relieve the patient of the visceral disorder.

While, in my experience, the majority of cases of back pain, with or without associated peripheral neuritis, are comparatively simple and respond gratifyingly to combined orthopedic and physiologic measures: some cases are, of course, more serious, and, in these only proper surgical or medical interference will solve the problem. Most painful back conditions can be successfully treated by conserative means.

It has been shown, by Mixter and Barr[3], that a certain percentage of cases of intractable back pain are due to herniation of an intervertebral disc, with nerve-root pressure. The percentage due to such herniation is, however, small. Most patients should be given adequate conservative treatment for a reasonable period of time; then, if a satisfactory response is not seen, the possibility of protruded intervertebral disc should be seriously considered. When this diagnosis is established, surgical interference is probably the only satisfactory treatment. This has recently been confirmed by Reynolds,[4] in a series of cases. Meyerding and Pollock[5] state that less than 10 percent of the cases of chronic or acute backache eventually require surgical treatment.

Among the occasional causes of back pain and peripheral neuritis are vitamin B deficiency; plumbism; various neurologic disorders, including tabes; trauma; infections; congenital anomalies; neoplastic conditions; etc.

Fig. 1 (left) & 2:—Showing neck fascial stretching exercise (side and front views).

Mechanics of Back Pain

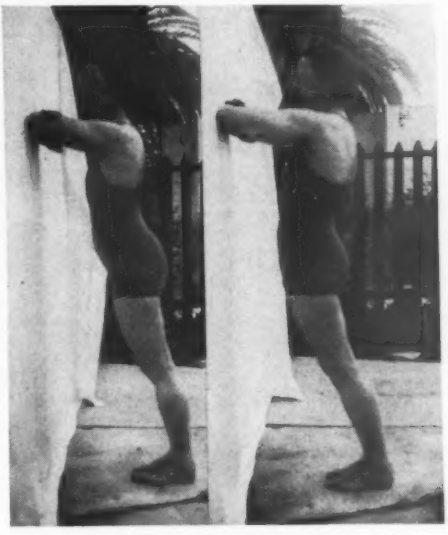
The importance of fascial contractures, in the production of back pain and peripheral neuritis, was first pointed out by Ober,[6] and of backache, particularly the relationship of physical therapy to its treatment, by Krusen,[7] who describes ". . . a contracture which helps to maintan poor body posture, and a poor posture which allows further contraction of the fascia." As early as 1913, Elsberg, of New York, described hypertrophy of the ligamenta flava, with compression of the cauda equina. Carnegie-Dickson and Twort,[8] have recently called attention to the abnormalities of the ligamenta flava. An excellent summary of the part played by these ligaments in fascial contractures, including mention of the work done by Naffziger, Inman, and Saunders, was recently published by Ayer,[9].

Fascial bands extend the entire length of the posterior aspect of the trunk, past the cervical vertebrae, and are attached to the base of the skull at their cephalic end; and anteriorly and posteriorly past the pelvis, into the fascia lata and iliotibial band, to be attached to the lateral condyle of the tibia, at their caudal end. Fascial ramifications also extend between the low back and the legs, in the iliopsoas regions. The fascial bands, in their ramifications, have many skeletal bony attachments. In their courses past the pelvis, their attachments include the region of the lumbosacral joint, the sacro-iliac joints, and the pelvic brim.

By orthopedic manipulative testing, the postural excursion limit allowed by any particular fascial ramification can be determined. If the limit is exceeded when testing, pain is produced in two locations: first, in the regions of the bony attachments of the fascial ramification tested; second, in the distal region of the course of the peripheral sensory nerves which pass through the fascial ramification tested.

For example, in the region of the neck, pain can be produced at the base of the skull; in the posterolateral aspect of the cervical region; in the interscapular region; up over the occiput; and radiating from the neck out into the region of the trapezius muscle, to the shoulder and down the arm. Such pains are produced by a forced lateral tilt of the head when the cervical vertebrae are dorsally extended and the skull is flexed on the cervical vertebrae and rotated 45 degrees toward the direction of lateral tilt. In the region of the pelvis, pain can be produced in the low lumbar area of the back, and anteriorly into the lower quadrant of the abdomen, by forced hyperextension, in adduction, of the leg on the pelvis.

Studying these two examples, one readily recognizes that the first reproduces the well-known clinical syndrome, variously known as *"wry neck"* or "kinks in the neck" or "cold in the neck or shoulder." The second corresponds precisely to the well-known syndrome of *dysmenorrhea.*



Figs. 3 (left) & 4:—Showing anterior pelvic fascial stretching exercise (facing the wall), before and while doing the stretch. In figure 4, note pelvis, now tilted posteriorly on legs.

Most of the back pains and peripheral nerve pains encountered in practice are thus easily reproduced, experimentally. In examining patients complaining of back pain, or peripheral nerve pain, or both, it is usually possible to exacerbate the symptoms momentarily by accurately placing a manipulative tension on the proper fascial ramifications.

Etiology

Postural defects, resulting in fascial contractures, have many causes. For example, the forward-tilted pelvis, with fascial contracture and limitation of posterior pelvic excursion range, may have originated from: (1) slumped posture in childhood; (2) poor adult posture habit; (3) occupational posture habit; (4) debilitation slumping after illness; (5) structural bony defects; (6) paresis or paralysis; (7) visceral irritations, such as endometriosis, pelvic inflammatory disease, etc.; (8) endocrine shortcomings; (9) fascial contracture, subsequent to traumatic fascial strain; (10) arthritis; (11) bone and joint lesions.

Exacerbation of fascial contractures is noticed (1) when the patient is subjected to a chill from a draft or dampness; (2) subsequent to traumatic strain of the fascia; (3) premenstrually; and (4) at the menopause.

These changes in fascial contraction can be measured accurately by manipulative testing.

Treatment

Many therapeutic procedures have been recommended for the alleviation of back pain and its frequently concomitant peripheral neuritis. The most commonly used are: (1) Deep pressure-massage of the fascia near the region of its bony attachments, causing relaxation of the fascial contracture for a restricted time interval; (2) sudden manipulative fascial stretching, throwing a sharp strain on the fascial bony attachments and producing relaxation of the fascial contracture for a varying period of time; (3) a local anesthetic, injected into the region of the fascial attachments, releasing the fascial contracture for the time that the anesthetic is effective (this interval has been markedly prolonged by the use of slowly-absorbable, oil-soluble preparations); (4) local applications of heat, causing fascial contracture relaxation, is very effective for a few hours subsequent to each application; (5) progressive stretching of the contracted fascial ramifications, which readily affords complete release after sufficient accumulative stretching has been accomplished, and continued as indicated; (6) endocrine treatment, as indicated, including thyroid in the posturally slumped hypothyroid child, and other therapy which will be mentioned later; (7) restriction of motion by apparatus, such as braces and girdles, or by immobilization operations to prevent the instigation of symptoms by repeated substretching strains on the contracted fascia; and (8) fasciotomy.

It has been a common observation, by most workers in this field, that, in a large percentage of cases, restriction of motion and back pain have tended to recur, so that continuance or reapplication of treatment has been necessary.

During the past four years, I have selectively developed the exact passive, forced fascial stretching manipulations and active, progressive fascial stretching exercises necessary to correct specifically the various fascial ramification contractures, including those of the ligamenta flava. With these accurate fascial stretchings, a great many of the clinical syndromes of back pain and neuritis can be relieved.

The accompanying pictures illustrate the active stretchings necessary to correct the two clinical syndrome examples cited previously in this paper. Forced passive fascial stretching manipulations have been used only when necessary, as adjuncts to assure the progressive, accumulative nature of the fascial stretchings done routinely by the patient. Patients usually have needed to be repeatedly reminded and instructed in accuracy of doing the stretchings, and urged to carry each stretch far enough to assure an accumulative effect.

By the time the patient has obtained complete relief of symptoms, by means of accumulative stretching (usually in from three to six weeks, in a case of average severity), he has well learned the active stretchings that, carried out as frequently as necessary, will permanently prevent recontracture.

Endocrine Factors

Further investigation, with a view to finding additional aids in relaxing fascial contracture, has led me to a careful consideration of the relationship of the endocrine picture to fascial lengths (contraction and relaxation), and I have observed that, when the estrogenic level is low (particularly prior to menstruation and at the menopause), the fascia is more contracted than when the estrogenic level is high. This point has been checked many times, by repeated manipulative testing measurements.

Figs. 5 (left) & 6:—Showing antero-lateral pelvic fascial stretching exercise (front view), before and while doing the stretch.

In accordance with these observations, I begin administering estrogenic hormone*, as a supplement to orthopedic measures, giving it in rather large doses until the estrin level of the blood has been raised; and then, instead of stopping suddenly, I have changed to oral therapy with a pluriglandular ovarian formula†. The administration of estrogenic hormone results in definite fascial relaxation, as tested by postural motion manipulative measurement.

However, I am not able to aid fascial relaxation in males by a comparable endocrine therapy (use of the male sex hormone). At present, my best results, in males, have been with the use of an orally-administered lipid extract of adrenal cortex‡. This subject is still being actively investigated, and will be reported upon in more detail in a later paper.

Hisaw[10] and others have described relaxation of pelvic ligaments in the guinea pig, experimentally produced with estrogenic substance. This phenomenon normally occurs during pregnancy, and after parturition the original condition is gradually restored. It is known that the pelvic relaxation is produced by a separation of the ilio-sacral joints and the symphysis pubis, so that the ossa innominata may be moved independently of each other. In a pregnant woman, similar relaxation can be roentgenographically demonstrated, and

*The product I find most satisfactory is Plestrin, supplied by The Harrower Laboratory, giving 10,000 I.U. (international units), two or three times weekly.

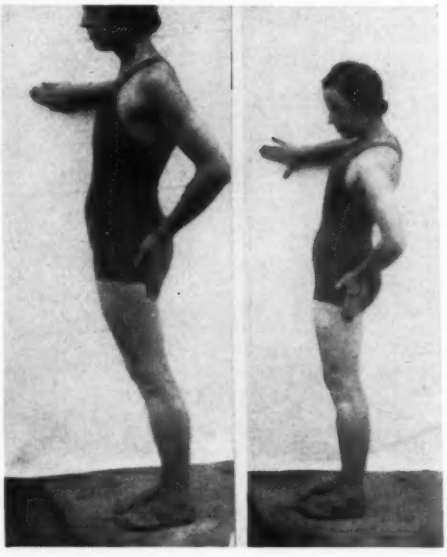
†The formula used is Menocrin Fortior, supplied by The Harrower Laboratory.

‡Cortinoral, supplied by The Harrower Laboratory.

the degree of relaxation is roughly proportionate to the concentration of estrogenic hormone in the blood. Thus the phenomenon is most marked in middle and late pregnancy.

The substance producing this action is apparently a hormone that can be prepared from corpora lutea, and it is active only in the presence of estrin[11]. This hormone has been called *relaxin*, and is closely related to progestin, but from the point of view of results reported here, the important fact is that the fascia-relaxing effect does not occur in the absence of adequate estrogenic substance. This, then, seems to provide a rational explanation for the action of the estrogenic hormone in the cases I have observed.

In addition, the endocrine therapy improves the general wellbeing of the patient and raises her energy quotient, so that, with a more normal return of energy, she is able to cooperate better in carrying out the carefully selected, progressive stretching exercises, which are an integral part of the treatment. The patient whose estrin level is low does not have the energy, or even the desire, to cooperate with the physician, in either office treatment or home follow-up. Under the influence of the estrogenic hormone therapy, however, the fascia relaxes and is more amenable to the necessary stretches; the patient's dynamic energy level is raised, so that she can stand more vigorous orthopedic measures in the office; and she has sufficient energy and endurance to do her exercises at home. Generally, the patient's mental outlook is greatly improved, and as a consequence, the cooperation, which is so necessary, is more easily obtained. In brief, the use of the estrogenic hormone has, in many cases, made the difference between success and failure of the progressive stretching treatment.



Figs. 7 (left) & 8:—Same as Figures 5 and 6: Side view.

I believe that the syndrome of backache and its ubiquitous companion, peripheral neuritis, is a major clinical problem. However, since we now seem to know where we are and have a fairly accurate knowledge of whither we are tending, it seems to me that we are in a position to judge what to do and, more important, how to do it.

Conclusions

1.—Backache and peripheral neuritis constitute a major clinical problem, and there is a common etiologic factor—contracture of the fascial bands—in a large proportion of these cases.

2.—The mechanics and technics of relaxing the contracted fascial bands are important therapeutic aids in these cases.

3.— Maintenance of a high estrin level in the blood makes the difference, in many cases, between success and failure of treatment.

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POSITIVE TESTIMONY

Nothing at all would be done if a man waited until he could do it so well that nobody could find fault with it. The testimony of a serious man who claims to know the truth on any matter, is worth more than that of any number of equally serious men who admit that they do not possess it.—J. W. SHERMAN.

Hemorrhage Following Tonsillectomy

By

PERRY WILSON BAILEY, M.D., Fort Wayne, Ind.

DR. BAILEY

Bleeding is always frightening to laymen, and when it is unexpected and difficult to control it upsets the equanimity of experienced surgeons. Dr. Bailey gives some practical suggestions which almost any physician may find helpful.

DANGEROUS hemorrhage following tonsillectomy is comparatively uncommon in children, but unfortunately frequent in adults. Barnes, at Harvard, gives the figures of 2 in 700 children under sixteen years of age, while 4 occurred among a group of 140 adults.

My own experience shows only one hemorrhage requiring any treatment more drastic than a dose of fibrogen, in a group of about 1500 children, while there have been 8 occasions on which it was necessary to suture the pillars, and a considerably larger number in whom some method of controlling bleeding has been required, in a group of about 250 adults.

It so happens that most doctors starting to do tonsillectomies begin chiefly with children, since their source of patients is from a family practice. Moreover, it takes a considerable amount of time before a series of a thousand or more cases can be completed. As a result, a doctor may go for a considerable time without seeing a hemorrhage; he feels that his own technic is so superior that hemorrhage cannot occur; and when it happens, he is not prepared to meet it.

The textbook descriptions of the methods of treating tonsillar bleeding are inadequate and often seem to have been written by men who knew nothing of the subject, and there is a strong psychologic urge toward hesitancy, so that the doctor is apt to delay too long, giving fibrogen and ice chips, until the patient is in a dangerous condition and becomes so anemic that many weeks are required before strength and health are regained; or death itself may slip in before the doctor realizes the seriousness of the condition.

Since it is always possible to put the patient to sleep with a general anesthetic, and stop the bleeding, and since it is always possible to give blood transfusions, deaths from hemorrhage should be rare. The gravest danger in these cases arises from the inexperience and procrastination of the operator. The patient may bleed almost to death with very little bright-red blood showing, but with a dilated stomach full of clots. When desperately anemic from a prolonged, continued, moderate blood loss, the bleeding may stop spontaneously, or the patient may slip over the edge into the great beyond.

Precautions

From the standpoint of prevention, it should go without saying that the bleeding and clotting time should be determined in all cases.

Tonsils must not be removed while there is any infection or sore throat.* This point requires careful watching. The same microorganisms that infected the tonsils will infect the wound, predisposing, not only to hemorrhage, but to lung abscesses and other complications.

High blood pressure is a contra-indication to tonsillectomy. While I have tried to avoid hypertension cases, I can report one case in which the blood pressure was 195/160 preoperatively. After the injection of 1 percent Novocain (procaine), with 3 drops of Adrenalin (epinephrine) per ounce, 15 cc. on each side, the blood pressure went to 260. After removing the left tonsil, the pressure was still 260.

There was not much postoperative bloody spitting until about 6:00 P.M., when both sides of the throat began to bleed furiously. Fortunately, a reinjection of the pillars stopped the hemorrhage on the spot. Further recovery was uneventful, and the removal of the tonsils seemed to improve the woman's blood pressure and her general health. Nevertheless, I am afraid of tonsillectomy whereever the systolic pressure is above 160.

Variations in operative technic will not prevent hemorrhages. With no good technic, whether the Sluder or the dissection and snare method, should there be much bleeding at the time of operation. Of course, tissue other than the tonsil should not be removed; the tonsil itself should be removed completely; and care should be taken to avoid injuring the large venous sinuses at the base of the tongue.

I use, routinely, the Van Osdell modification of the Sluder method, in which the tissues are thoroughly crushed before severing them. With this method there is little blood loss at the time, but there is no technical method which will prevent the chance of hemorrhage later.

Various gargles, lozenges, etc., may cause postoperative bleeding. I had a run of bad luck following the employment of Aspergum.

The preoperative use of Nembutal or other barbiturate may cause the patient to swallow blood and not spit, thus concealing the extent of the blood loss.

Types of Hemorrhage

We may presume that reasonably careful operators do not allow a patient to leave the table with the throat still bleeding, and ordinary tonsil hemorrhages fall into two classes: *Primary* hemorrhages, which start with the vomiting and retching immediately postoperatively; and *secondary* hemorrhage, usually on the 4th to 7th day, when the scab is sloughing from the tonsillar fossa.

In primary hemorrhage the patient is extremely restless and difficult for the nurse to manage. If

*Some writers recommend tonsillectomy in the treatment of quinsy, but certainly Dr. Bailey's advice is best for occasional operators.

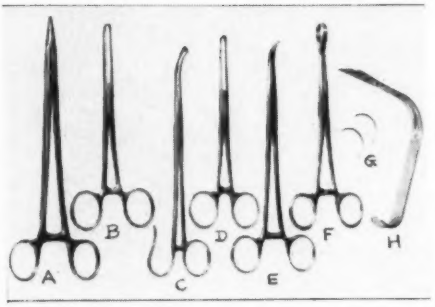

Fig. 1:—Instruments required: A.—Long-handled needle holder; B. & D.—Allis forceps; C.—White's tonsil forceps; E.—gall-duct forceps; F.—sponge forceps; G.—round-point needles; H.—tongue depressor.

the operation was done around nine in the morning, the situation will usually seem to become acute about noon, at the time when the nurses change shifts for dinner. The amount of blood lost into the stomach is large in proportion to the amount spit out.

The surface from which the tonsils have been removed forms a scab, much like that which would form on a skin wound, although the material in the throat is white, on account of the constant moisture, instead of black, as on the skin. When pieces of this scab slough off, a little secondary bleeding may be started, or infection may open a large vessel, so that bleeding is profuse. If infection is at work, it will be necessary to treat both sides of the throat since, if only one is bleeding, the other soon will be.

In many of the mild cases, the patients do not notify the doctor at all, since the bleeding stops spontaneously. Such cases may often be controlled by rest in bed, ice collars, sucking ice, and fibrogen, but they had best be kept under observation, preferably in a hospital, since the bleeding may become worse at any time.

Methods of Control

Of methods for control of hemorrhage, I speak only of those with which I have experience. Fibrogen stops many minor cases, particularly those children who, in the afternoon, seem to have a nose bleed. It should always be given as an initial measure. In my own experience it has seemed that thromboplastin did no good at all.

Ice collars and cracked ice may relieve mild cases. Gargling with 5 percent tannic acid solution sometimes works. Strengths less than 5 percent are ineffectual.

If we take the same syringe that is used for local anesthetic operations, and inject 1 percent Novocain, with 1:40,000 Adrenalin, in the same amount and by the same method used preliminary to operation, about 60 percent of cases will stop (this method is not original with me). The bleeding may, however, recur in about an hour. If it was almost stopped, but there was still a little bright-red blood in the saliva, the bleeding will certainly recur.

This method of injection should always be tried in a conscious and cooperative patient. Even though it may fail as a complete cure, it will so reduce the hemorrhage as to make transportation easier, and will relieve the anesthetist of the difficulty caused by the blood in the patient's throat.

Suture of the pillars is the treatment for bleeding occurring in any appreciable amount. One must not stand by, losing time with ice chips and fibrogen. One must get the patient to sleep and *stop it*. If nothing else were done, sponge pressure alone would probaly get the situation under control, but suture is better.

Nothing can be done, in ordinary circumstances, when the patient is awake, although an artist might be able to suture the pillars under a local anesthetic. It is better to have him asleep.

A long-handled needle holder is required. To do work deep in the throat long-handled instruments

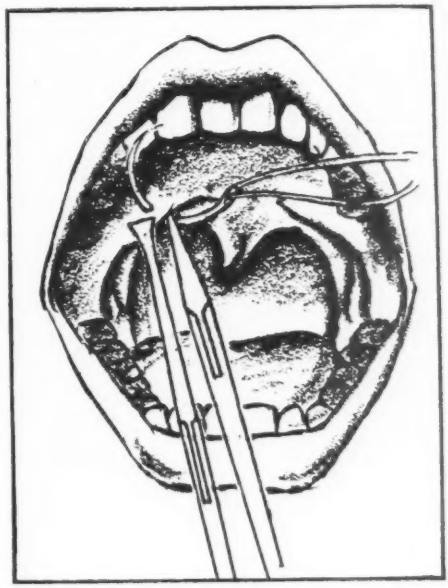

Fig. 2:—Anterior and posterior pillars held together with Allis forceps and stitches being inserted.

are absolutely requisite (see Fig. 1). Half-curved, round-point needles, of several sizes, should be on hand, together with No. 1 plain catgut. The specially made pillar suturing needles are unnecessary.

Anesthesia must be deep enough to relax the jaw satisfactorily. As the patient first goes to sleep, the anesthetist must beware of the sudden vomiting of a quantity of blood.

With the patient relaxed, the jaw is opened wide with the mouth gag; the tongue is depressed; and any blood clots are removed from the fossa. Then apply sponge pressure until the bleeding is checked.

Seize the posterior pillar with an Allis forceps and draw it up against the anterior pillar. With a second Allis, clamp both pillars together, and release the forceps that was first applied. The pillars are now in good position for sewing (see Fig. 2).

Suture with interrupted stitches, entering the needle from below and seizing the point with a Munson cystic-duct forceps, or some similar long-handled instrument. Knots should be tied square, with three throws. The stitches should be about a quarter of an inch apart. The throat should be dry before the mouth gag is released. An intravenous infusion of 1,000 cc. of 5-percent dextrose in physiologic saline solution is advisable. The

throat will be decidedly sore afterward, and the patient must be watched for recurrence of the bleeding about the third day.

Summary

1.—Danger from tonsillar hemorrhage comes chiefly from the inexperience of the operator, who is not quick enough to put the patient to sleep and stop the bleeding.

2.—The certain and effectual method is suture of the pillars, the technic of which is described.

3.—It is beneficial, in many cases, to try the effect of an injection of Novocain and Adrenalin before suturing the pillars.

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The Physician and Human Nature

By
T. H. Maday, M.D., Chicago, Ill.

The well-informed physician treats *patients* (human beings), not diseases, and unless he is thoroughly familiar with human nature and its manifestations, his success will not be noteworthy. Dr. Maday makes some helpful suggestions along this line.

HUMAN nature embodies the mental qualities of man, as well as his bodily framework, with its inherited and acquired anatomic structure and physiologic functions. It is, therefore, distinctly *human,* as distinguished from animal nature and instincts, because, in addition to an animal nature, much in common with the other animals, man possesses the power of reason and thought, of which no lower animal has as yet given any clear demonstration. Moreover, human nature is manifested in all human beings, no matter where found, though it may appear in different degrees, in different geographic localities and at different social levels.

Considerable medical teaching and literature, of late, stresses the treatment of the *patient,* rather than his disease or diseases, but to do this one must learn to know and understand human nature. Those who have learned these lessons will have the larger practices, and also the love and respect of their patients and other fellow human beings.

A Layman's Letter

The other day I discussed the subject of human nature, in its relation to the medical profession, with a business man who uses such knowledge in his own business, and the following letter from him is interesting, because it gives us the layman's point of view.

"Dear Doctor:

"You have no idea what it means to a layman to find a doctor who treats his patients as human beings. We are tired of being treated simply as machines, by modern medical practitioners!

"It seems to me that the medical profession might profitably consider the fact that other lines of business have discovered the wisdom of emphasizing the human element. The people who buy services and goods from tradesmen who understand human nature, are the same individuals that visit doctors' offices.

"In the old days, a manufacturer made a product and told his salesmen to go out and sell it. Today, he sends men out first to find what kind of a product people want. The emphasis is on people's wants, and people have become accustomed to having their wants considered by those to whom they go for services or goods. The vacuum cleaner salesman who calls on your patients knows more about human nature than he does about various sciences used in manufacturing his product!

"Your schools teach about the bony structure of the body, the nerves, the brain, the stomach, and other organs. Isn't the way a person *feels about himself* just as important as any of the other matters? It certainly is to the patient! Why not make it possible for doctors to learn as much about the part of a man labeled 'human nature' as the one labeled 'digestion'? Much money is spent, in other lines of activity, to find out *how people think.*

"What I am saying is general. It is not directed at you, personally, nor at other doctors who are practicing with a full knowledge of human nature. These lines are being written out of my experiences and those of my friends, with members of the medical profession who disregard the human nature side of their patients.

"My secretary came to work the other day quite wrought up over her sister-in-law, who had been under a doctor's care for some time, during which several operations had been performed. On the previous day, the condition of the patient had been low and the doctor had been called. He told her with the finality of a judge, 'I've done all I can for you.' Said my secretary: 'Why didn't he treat her as a human being, instead of like an automobile! The least he could have done was to talk to her sympathetically, in an understanding way. Had he done that, she wouldn't have taken a turn for the worse, and I wouldn't have had to be up all night with her.'

"Said another person to me recently, 'I'm going to stop going to Dr. So-and-So. He's a good doctor, but he's so cold and analytical. He seems to be more interested in treating my body than he is in treating *me*'—rather intangible statement; but the money which the doctor will cease to receive from this patient is quite tangible.

"There is a well-known physician, to whom many mothers have taken their small children, only to discover that the doctor 'doesn't know the least thing about human nature,' as they put it. Very soon the mothers stop going, and this man's name is frequently mentioned when

mothers get together and talk about their children.

"If you men who *do* practice human nature, along with medicine, would share your knowledge with your fellow-doctors, we laymen would certainly extend you our vote of thanks."

This letter presents, clearly and concisely, the viewpoint of the keen business man, an outsider who looks at us as he sees us.

What, then, should a physician know about human nature?

1.—He must recognize the patient as an individual;
2.—That there is a difference between individuals;
3.—That the individual is selfish;
4.—That emotions play an important part in human nature;
5.—That fear is an important factor and must be analyzed;
6.—That anxiety is an important emotion;
7.—That modesty is an emotion to be considered; and
8.—That sympathy is a strong emotion.

The Patient as an Individual

As an individual, we cannot subdivide a human being into parts. He must be considered as a whole, living organism and a fellow-man, not as an anatomic specimen. No matter in what specialized field his particular ailment of the moment may be classified, he ails as a whole body-mind, and not in any particular part only.

As an individual, he is different from anyone else, even though he is a member of a multiple birth, because the physical world is infinitely diversified; no two physical things are exactly alike. Hence, there is infinite scope for discrimination between kinds of things and between individual things of the same kind; and the man who can form accurate judgments between things will, in the main, be most successful. The development of the *power of perceptual discrimination*, between *things* and between *classes* of things, is the basis of all the higher forms of mental activity.

The individual must and does obey, always, the first law of nature—*self preservation*. In the lower animals, the preservation of life is accomplished *without mental connivance, conscious* or *unconscious*. Even those highest in the scale of subhuman life are unconscious of the inevitability of death and of the ultimate fate of all living things. This knowledge is a human acquisition. In man, the instinct of self-preservation is well developed. It may often take some special circumstance, such as dangerous illness or an accident, to awaken it from a dormant state, but nevertheless, it is always there.

Because he seeks self-preservation, as an individual whose living parts cannot be preserved separately, he must be selfish in order to perpetuate himself as long as possible. Love of life develops in every human being. The old cling to it more closely than the young.

Emotions Play an Important Part

Every man must, from his own consciousness, feel convinced that the human psyche embraces something more than mere intellect. We all feel, as well as think, and our judgment is influenced by our feelings more strongly than by thought.

Satisfaction, discontent, desire, fear, anger, jealousy, hatred, grief, etc., are states of our internal organization, which the animal and the man do not determine, but which both feel before having thought of them. They exist for the preservation of the animal and the man, without consciousness, reflection, or active participation, on the part of the individual, being necessary. These mental states, when they reach a certain degree of intensity, do what electric excitation does in a vivisected animal—they produce certain external acts, such as gestures, movements, attitudes, which take place involuntarily and without consciousness being necessary, and which always correspond to

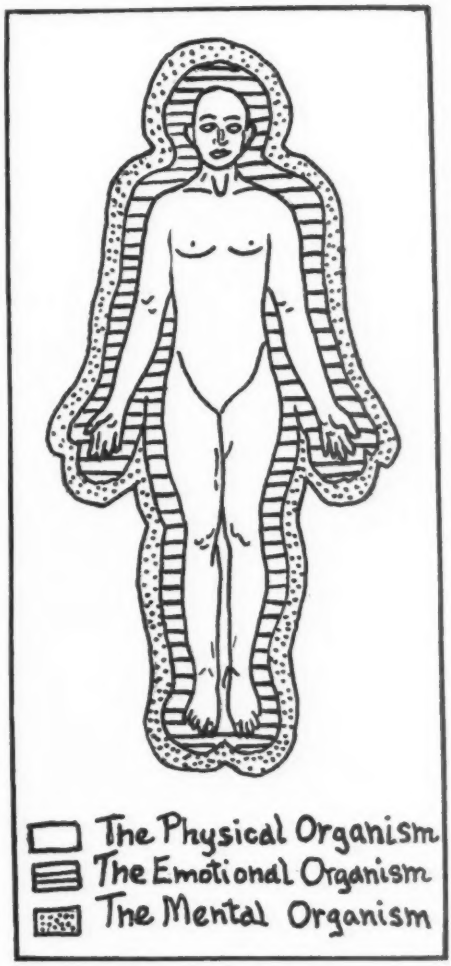


Diagram of the Constitution of Man.*

By analogy with an automobile, the physical organism is represented by the chassis and body of the car, the emotional organism by the motor (the power plant); and the mental organism by the controls (steering wheel, brakes, clutch, etc.). The driver, who alone, knows (or does not know) the destination of the journey, is the *man himself*— the Human Soul.

*The author of this paper is not responsible for this diagram or its legend, which we have inserted as being of some possible philosophic value for clarifying thought processes.—Editor.

the designs of nature for the preservation and needs of the individual.

The intellectual life—the understanding or reason—does not supply the motives or impulses to action, but the feelings and propensities which create the desire for their gratification. The intellect acts, rather, as an inhibition to the emotions; the greater the understanding, the greater the check on the emotions and passions. A child, a savage, and persons of little culture are less able to restrain their emotions. Women, as a rule, are more emotional than men.

Fear

According to Webster, "Fear is a painful emotion, characteristic of the apprehension of evil. It is a primitive affection, marked by a revulsion and agitation in the presence of the object feared and, normally, by a desire to flee or avoid it." Apprehension is associated with the contemplation and anticipation of unfavorable events; the distrust or expectation of future evils.

Fear originates wholly within us. It has only been stirred into activity by some outside agency. We do not wish to believe this, and blame our fear upon the environment, since we find, in the outside world, those stimuli and obstructions which cause fear to develop within us.

The reason why the feared thing is likely to happen is physicomental. Every emotion affects the most inaccessible parts of the body, altering the rate of the heart and the flow of the blood, breathing, the tone of muscles and their capacity for work. Some emotions, such as happiness and certain forms of anger, increase the output of energy. Others, such as sorrow or grief, and especially *fear*, lessen the energy of the body, decreasing the force of the heart, muscular endurance, and digestion.

It is by this kind of "Fear Devil" that we may be reduced to hopeless inability. The man fearing loss of position, may increase his efforts, but is more likely to lose his place, since fear may keep him from filling it well. One who fears ridicule may become less easy and natural in his actions, and so make himself more ridiculous. The woman fearing age and loss of beauty, daily makes herself less beautiful. One who fears the loss of the man she loves is more likely to lose the charm which holds him. The fear of financial failure reduces a man's capacity to think clearly, and thus to prevent the threatened disaster. These fears, however, are but the external stimuli which stir up the real fear within—the fear of inferiority. Fear, in itself, is the first indication of failure.

If a man shows chronic fear, it means that there is an obstruction to the free flow of his energy, even though he is not consciously afraid and also does not realize just what causes his fear. Man reacts to the fear of moral danger, just as an animal reacts to any menace to his physical safety. Most men are wholly unaware of the source of their feeling of inferiority, yet these instinctive and unconscious fears, through worry, anxiety, or moral distress, may lead to severe illness.

If, as physicians, we wish to keep others well or hasten their return to health, we must learn not to suppress our own instinctive feelings, emotions, or compulsive thoughts, but face them and conquer our fears, so that we can teach others to do the same.

Anxiety, Modesty, and Sympathy

Anxiety is a reflection of the primitive fear which seizes all living things, and man is especially subject to this fear because of his weakness and insecurity in nature. His dominant character trait becomes a thirst for help and consideration from his environment. The farther he stands from the solution of his fears, the more developed is his cautiousness.

Anxiety brings into play the gamut of human emotions, and really brings the individual to the physician—the only friend to whom he can and must confess his fears; the one who can allay his fears and thus allow him to continue a more placid existence, and to remove this anxious strain.

We encounter these individuals daily. Sometimes we call them neurotics, hypochondriacs, or frank inadequates. If we will take the time to probe their fears and anxieties, by patient study of the early causes or by more sympathetic contact, and give them physical or mental relief, fear will become subordinate.

Modesty appears whenever it seems that the value of one's personality is about to sink, or where one's conscious self-evaluation might be lost. This is especially true in women, in whom this effect is strongly transferred to the body, and the attitude is one of withdrawal. Even in men we see the effects of modesty, because they honor us by the clean washed body and clean clothes in visiting us or when we visit them, but there is a hesitation to disrobe, because of a fear or knowledge of anatomic imperfection, which one would like to conceal, but should let the physician see.

The physician should know that what is not readily apparent must be approached with benevolence, agreeableness, and sympathy, as well as with comparison and experience of these situations.

Sympathy is the purest expression of the social feeling, and whenever we find it in a human being, we can, in general, assume that his social feeling is mature. This allows us to judge how far a human being is able to identify himself with his fellow men; how helpful he really wishes to be.

In these modern days of insecurity, it requires a great deal of benevolence to dispense sympathy; *but a physician could not be a true man of his calling if he were not endowed thus.* Let us use it more freely, and be more agreeable in its use.

Putting Laws to Work for Us

When adding a column of figures, we use the law of mathematics. If our total is in error, we know that the mistake was in us and not in the rules of addition. We find the same principle at work in medicine. The physician who seeks out the laws of physiology, chemistry, materia medica, and the like, and who understands and uses them, is able to make fewer mistakes.

Laws concerning human nature, or psychology, are not yet so well known as those governing mathematics or medicine. However, our inability to see them, to understand them, to use them, does not render them impotent. As Will Durant recently remarked during an address before the Executives' Club of Chicago, "My inability to recognize a truth does not cancel its truthfulness."

To wait for further knowledge of the laws of human nature before attempting to use them may be "scientific," but our loss may be great. Let us courageously put what we now know to work for us, adopting an expectant attitude. When we push the button, we expect the electric light to flash on; yet who can explain electricity? As venturesome souls continue their explorations, new light will be thrown on the subject. Undoubtedly later

discoveries will show the wisdom of replacing some of the factors discussed in this article with presently undisclosed knowledge.

In the meantime, let us use the principles that are known today. If their application proves successful, that is sufficient, for the time being. We need not deny ourselves the benefits of the known laws of human nature, while waiting for further data.

Those who proffer us State Medicine understand human nature and its frailties, and how to appeal to people! To combat that sort of propaganda, one must know as much as they. The less physicians know about human nature, the harder it will be for them to fight those who know a great deal. Publicity men and politicians *have to know* these things. Physicians *should* know them.

3000 N. Cicero Ave.

Andrews' Method of Inguinal Hernia Repair

By

C. G. Bain, M.D., M.S., Centralia, Wash.

A number of operations for the surgical repair of inguinal hernia are available, but one of the best ones seems to be rather overlooked. Dr. Bain describes it here, so clearly that it will not be necessary to consult a textbook.

Andrews' imbrication method was used in 38 herniorrhaphy cases, and would seem to have given satisfactory results in the 36 that have been observed. A brief description of this operation follows:

The incision is made, about three inches long, over the region of the canal. All skin vessels are tied. The external oblique fascia is exposed widely, down to Poupart's ligament and around the external ring. This fascia is incised over the middle of the cord, the cord separated by the fingers, and a gauze sponge is put underneath it, for traction and exposure.

The ilio-inguinal nerve is kept aside and the sac exposed by dissecting through the cremaster muscle fibers and overlying fasciae.

The sac is opened and isolated, up into the internal ring. It is then stick-tied and excised, the stump being Kocherized (tied up under the edge of the internal oblique muscle).

The sponge is now removed and the *Andrews' stitch,* which is well described in "Surgical Technic," by Printy, is used (see Fig. 1). The lower aponeurotic flap (external oblique fascia) is held perpendicular and the needle passed from without, entering the inguinal canal close to the shelving edge of Poupart's ligament, thus avoiding injury to the femoral, iliac, and epigastric vessels. The needle then catches the united internal oblique and transversalis muscles.

Next the suture is reversed and catches the shelving edge of the inguinal ligament near the point of beginning; then it grasps the edge of the upper flap of the external oblique aponeurosis.

The needle is then passed through the lower flap of the aponeurosis, just anterior to Poupart's ligament and close to the point of entrance. When this suture is snugly tied, it brings the edges of the muscle and upper flap of aponeurosis into perfect apposition with the inguinal ligament.

I use No. 2 chromic catgut, doubled, and put in two or three such sutures. These are not tied

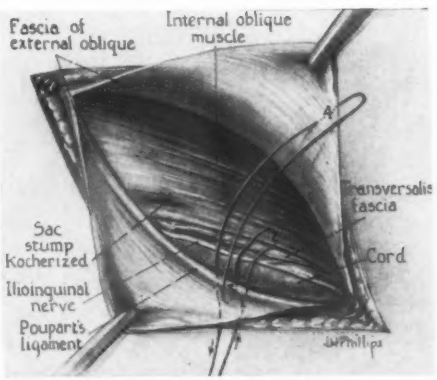


Fig. 1:—Showing, semidiagrammatically, the placing of the suture: (1) Entering from below, into the external oblique fascia at Poupart's ligament; (2) into transversalis fascia and internal oblique muscle from under side; (3) back into under side of the lower part of the external oblique fascia above Poupart's ligament; (4) into upper edge of external oblique fascia; (5) back through lower portion at Poupart's ligament.

until all are inserted, and a finger is placed over the cord to prevent its being caught when they are tied. The cord is not transplanted.

It is often necessary to put an extra stitch at the reconstructed external ring, joining the two layers of the external oblique fascia, so that the cord is accommodated snugly, but without pressure.

The lower flap of aponeurosis is turned up and sutured with a continuous, No. 2 chromic catgut suture (see Fig. 2).

In a few individuals, interrupted sutures of fine, plain catgut may be used to approximate the subcutaneous tissues, although I usually use only two silkworm-gut tension sutures for this purpose, and close the skin with a running dermal stitch.

All but 2 of the 38 patients were kept in bed for three weeks. They were advised to do no lifting for two months after the operation, and to use some caution in heavy lifting for another four months. Thirty-six (36) of the 38 cases have been

followed, and there has been no recurrence in these. Two patients died from unrelated causes, one and two years, respectively, following operation.

There were few postoperative complications. Three (3) patients developed some cough post-

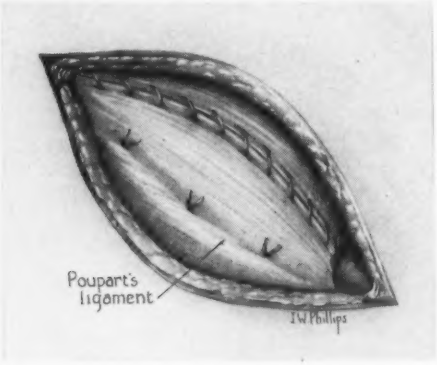


Fig. 2:—Showing the three sutures tied and an extra single suture placed to make the external ring smaller and snugly accommodate the cord. A running suture is used to imbricate the lower leaf of the external oblique fascia over the upper.

operatively, which was more or less controlled by the usual methods; 2 developed some infection in the incision, which cleared up satisfactorily; one case developed a hematoma, which was absorbed.

This method seems to be the simplest and most physiologic of any in common use, and to give excellent results, at least in primary cases. Experience with *recurring hernias* suggests that fascia lata sutures will prove more satisfactory in such cases.

Not only were these cases almost free from complications, but none of them has shown any undesirable sequelae. None has complained of pain, swelling, or anesthesia in the scrotum or testis.

In two cases, the Andrews' type of repair was deviated from, because of the apparent thinness of the external oblique fascia. One of these was a sixty-two year old man, and the cord was placed between the overlapping layers of the external oblique; in the other (a direct inguinal hernia), I thought that the Bassini type of repair would give a stronger fascial support. These were seen early in the series, and would now probably be done by the Andrews' method, because I feel that transplanting the cord does not strengthen the fascia.

I place a good deal of emphasis on a careful closure of the external ring. Ethyl chloride, for induction, followed by ether, was used for anesthesia.

In two cases an orchidectomy was also performed. One of these was in connection with a recurring hernia; the other for undescended testis, in a man of forty-eight. In only one case, a woman, age forty-six, was the canal on the opposite side operated upon at the same time. I have seen several recurrences, where both sides have been treated at the same operation. There were two cases of direct hernia, one of which, already mentioned, was repaired by the Bassini method.

Inasmuch as most of these cases were in men employed in the logging industry, it would seem that this simple technic gives excellent results.

413 N. Iron St.

EXALTED HYSTERIA

There are certain expatriates who are raising their voices in loud accents, with the proposition that America sink her individuality and become a sort of tail end of a foreign empire. If this is not an example of exalted hysteria, I don't know what could be.—His Eminence William Cardinal O'Connell, of Boston, in *Scribner's Commentator*, Feb., 1941.

DUTY AND PEACE

In the discharge of complex social duties, peace is desirable, righteousness imperative, and the two but rarely concurrent.—Lawrence W. Neff.

THE BLESSING OF DUTIES

Thank God every morning when you get up that you have something to do that day which must be done, whether you like it or not. Being forced to work and forced to do your best, will breed in you temperance and self-control, diligence and strength of will, cheerfulness and content, and a hundred virtues which the idle never know.—Charles Kingsley.

CULTURE THE MEASURE OF THINGS

Though we may constantly grow in understanding as time elapses, we can, at any particular moment, get little more out of things and events and persons than we have in ourselves, and any environment in which we happen to be means nothing more to us than we are able to understand.—Ancient Wisdom.

A Living for the Doctor

The Business of Medicine and the Art of Living

Modern Diagnosis

THE tradition, long fostered by the ultraconservative element in medical groups, of reserving all laboratory tests for the unusual or difficult case, is as poorly founded in scientific fact as is the growing tendency among the "over-scientific" physicians to take a short history, make a cursory physical examination, and then subject the patient to every possible test, and make the diagnosis solely on the results of tests carried out by technicians.

Certain symptoms, certain physical signs, and certain laboratory tests are definitely diagnostic and of equal value. Why place one above another? What must the old, hard-bitten clinician think of the findings obtained by *routine* roentgenograms of the chest, *routine* blood-sugar determinations, and *routine* blood-cell counts? Early cases of diabetes, tuberculosis, and pernicious anemia are found by these means, *before* they become symptom-producing and disabling. Possibly, he may begin to realize that half of the material written on diagnostic signs and symptoms belongs to the stage of *advanced* disease, and that, today, *we do not need to know the varied signs of far-advanced and ineradicable disease*, but must concentrate, instead, on the indefinite, the vague, and the shifting diagnostic points of *early* disease.

The old clinician says (see Blumer's "Bedside Diagnosis"), "Make one diagnosis only." The modern diagnostician says, "Make as many diagnoses as can be substantiated. Attempt to account for every symptom and sign. Because a patient has sinusitis, do not forget that he may also have a brain tumor. A neurasthenic may suffer from mild pernicious anemia, coronary sclerosis, or fibrositis."

The old diagnostician, such as Richard Cabot, was blessed with a marvelous memory and could at once think of a number of diseases that might be productive of a sign or symptom. By excluding all except one, he proudly announced the "correct" diagnosis, and was right in about half of the cases (see Cabot's articles from 1900 to 1910). It was such rule-of-thumb methods that resulted in diagnostic epigrams such as, "A fever that lasts more than two weeks is usually caused by typhoid"; "Hemoptysis should be considered of tuberculous origin until proven otherwise," and so on.

In reading over these cases, one is amazed at the number of symptoms which are dismissed as irrelevant or not helpful in making the diagnosis The very early case of carcinoma or tuberculosis could not be diagnosed then. Today, it is our responsibility to use every necessary diagnostic method.

R. L. G.

★ Notes and Abstracts ★

Lines Carried in a Pocketbook*

(Written by a man out of a job and greatly bereaved. Now, after eight years, he is successful and happy.)

I AM a man. I am one of a race of beings who have come up out of the primordial slime. My ancestors, struggling through the ages, have overcome obstacles past the power of my mind to conceive. Their blood is in my veins. From them came the spark of life which is within me.

Because I am a man, I make mistakes. My judgment is erratic. Sometimes I do the wrong thing when I know it to be the wrong thing, in the foolish hope that its results will not catch up to me. They always do. And those results cannot be charged off to bad luck or circumstances unavoidable. They are mine own responsibility. When I voluntarily strayed from what I knew was the true direction, it was written into the contract that I should accept the consequences without whimpering. If I do not so accept them I become less than a man—a thing of which my ancestors would be ashamed.

When circumstances gang against me there is no reason for me to quit. What I have to do has been done countless times before by men with no better equipment than that which is in my hands. What

*The Chicago Tribune, The *Line Book* '40.

they have done I can do. If I seem not to succeed, I have only to try again.

I have only myself to please, but pleasing myself involves being considerate of others. If I am unkind or thoughtless, inconsiderate or cruel, if I lose my temper or fail myself in a crucial situation, then I displease myself. That others do likewise is but poor consolation. I am not responsible for their conduct. I am responsible for my own.

"CLAUDIUS"

The Unhappy Neutral*

"OLD Winter's gone, the snarling, windy churl,
And Spring is here," I chortled merrily.
Old Winter heard and, reaching 'round the girl,
Proceeded then and there to chastise me.
And as I lay, a broken thing, accurst,
I heard a voice commanding "Open wide."
This I obeyed, and bade him to do his worst.
He did. He gave me sulfanilamide.

Then I became a neutral town war wrecked
'Twixt the invading and the rescuing hordes,
With tottering towers when, the battle checked,
The flames had ceased to lick my bricks and boards.
The moral that this dreary tale dispenses:
Be still, and build up adequate defenses.

TOM CHEKOURAS

Faith and Pills

YESTERDAY I heard of a remarkable young doctor who offended a patient by refusing to give her any medicine. He said he didn't know what was the matter with her, and he couldn't prescribe medicine without seeing some reason for it.

The grim honesty of that attitude is a rebuke to al quacks, but it may not always be wise.

One bright Sunday morning, years ago, I rode downtown with a kindly old doctor who was both a scientist and a philosopher. We hadn't gone far when a lady pushing a baby carriage signaled the doctor to stop and asked him to examine her ailing infant.

Doc took the child on his knee and played with it for a minute or two and then began to write a prescription.

"Give this as directed," he said, "and if the baby isn't better by tomorrow morning, bring it to my office."

This seemed a miraculous diagnosis, and as we drove on I asked Doc what was wrong with the baby.

"Not a thing in the world," he answered cheerfully. "The medicine was to pacify the mother. It won't hurt the baby; and if there is anything wrong, it will develop by tomorrow morning so I can tell what it is. The mother thinks there's something wrong, and if I had done nothing for the baby, she would have taken it to another doctor."

The old-time M. D. may have been short of learning, but he knew human nature.

The recent epidemic of doctor's autobiographies makes it clear that the old-timers, for all their scorn of faith cures, cured by faith without realizing it. Both the doctor and his patient believed in the curative value of medicine, and the doctor gave it generously—a different kind for each symptom. The "ease his pain and wash him out" theory worked all right, unless the patient had appendicitis, but the other dosings probably cured nobody.

How, then, were they cured? By nature, plus faith. People believed in their doctor and felt safe when he stepped inside the door. If he had given them flour pills, his service still would have been worth all he received, for he took away their fears and gave them the hope and confidence they needed to get well.

Modern doctors give little medicine. Doubtless they would feel like quacks if they gave flour pills when the patient's symptoms seemed to call for nothing more. But human nature has not changed. We still live by faith. And half the value of medical science will be gone when cures depend on medicine alone.—ROBERT QUILLEN, in *Fountain Inn Tribune*.

*The Chicago Tribune, *The Line Book* '40.

★ Books ★

The Necessity of Reincarnation

Hall

REINCARNATION, the Cycle of Necessity. *By* MANLY P. HALL. *First Edition. Los Angeles, Calif.: The Philosophers Press, 1939. Price, $2.00.*

REINCARNATION is merely the extension of the universal law of cause and effect, to embrace the moral and spiritual nature of man, as well as the physical, and the reasonably extensive literature in regard to this teaching is being studied by an ever-increasing number of thoughtful men and women.

The author of this volume, who is probably the most scholarly occultist now living, presents here a carefully sifted and considered synopsis of the evidence for this philosophical conception, as found in the world's literature, including various great Scriptures, and briefly suggests how it can be applied to the solution of the most perplexing problems of life—the nature of good and evil; fate versus free will; the secret of genius; and the like. The presentation is strictly intellectual, being free from all prejudices and emotional reactions. There is a good, working bibliography.

Every thoughtful and open-minded person, who has not yet found a coordinated and rational philosophy of life that meets his needs, will do well to give this book serious study.

The Detail Man

Jones

DETAILING THE PHYSICIAN. *By* TOM JONES. *New York: Romaine Pierson Publishers, Inc. 1940. Price, $2.75.*

PRACTICALLY every physician in the country is called upon frequently by detail men, and those who are interested in knowing what kind of training these men have had for their jobs, will find that information here.

Physicians sometimes find that, for one reason or another, clinical practice is not so satisfactory as they had expected, and plan to obtain a detailing position with some pharmaceutical house. For such, this unique book will prove simply invaluable, as a careful study of it will increase their chances of making such a connection from 50 to 100 percent.

Most of those who have actually been in the detailing business for years will find here suggestions which, if followed, will increase their effectiveness and their income, as the author has had a wide and successful experience in this field.

The Seminar

Our readers are cordially invited to submit fully worked up problems to the Seminar and to take part in the discussions of any or all problems. Discussions should reach this office by the 5th of the month following the appearance of the problem. *Send your problems and discussions to* The Seminar Dept. care CLINICAL MEDICINE, Waukegan, Ill.

Problem No. 2 (Surgical)

Presented by W. A. Diddle, M.D., Iowa City, Iowa

(See CLIN. MED., Jan., 1941, p. 50)

RECAPITULATION: A girl of 18 years gave a history of undergoing an abdominal operation for a mass in the right lower abdominal quadrant. The surgeon made a diagnosis of appendix abscess, and drained the area, releasing some material that seemed to be pus.

Six months later, definite "pointing" took place in this region, and drainage was again carried out. No fever was present with either of these episodes, and the patient's general health was good.

The mass reappeared several months later, when a careful general physical examination, and blood and urine studies, revealed nothing abnormal. There was no fever, no pain, no bowel upsets. On pelvic examination, the uterus was found to be pushed to the left by a mass.

Requirements: State your tentative diagnosis, *giving reasons.* What further information would you need to reach a definite diagnosis?

Discussion by B. B. Parker, M.D., Centerville, Ia.

Basing my diagnosis on the information that a painless mass appeared in the right lower quadrant, in a patient otherwise in "good condition," having no fever or intestinal disturbance, and that the mass recurred following drainage but was unaccompanied by fever or other signs of inflammation; and on recurrence a third time, when clinical examination and laboratory tests failed to find anything but a mass pushing the uterus to the left, I would say we are confronted with a *cyst* of some type.

It is possibly an omental cyst, but I incline to believe that it is an ovarian, parovarian, or intraligamentary cyst, probably the latter; and to go even farther, and class it as *embryonic*, meaning a *teratoma* or *dermoid cyst.*

Surgical exploration, instead of conservative drainage, already twice repeated, would have cleared this diagnostic problem.

Discussion by A. E. McMahon, M.D. Glenwood City, Wis.

My tentative diagnosis is a *dermoid cyst of the right ovary.* This diagnosis is based upon the history of the case, and the fact that the examination, made after the patient had been anesthetized, revealed a mass in the right lower abdomen which had displaced the uterus to the left. The most likely mass that could displace the uterus would be an ovarian tumor. The type of tumor is pretty well revealed by the finding, at the first operation, of material which " looked like pus," but which undoubtedly was sebaceous material, probably more or less liquefied. The recurrence of the mass after drainage supports this contention.

The mass certainly was not an appendiceal abscess, which would result from perforation of a well-walled-off, acutely inflamed appendix. In cases in which appendiceal abscess is found there is a definite history of abdominal pain, localizing in the right lower quadrant after some hours. The onset of the pain is followed by anorexia, nausea, and vomiting—possibly only anorexia, but usually there is, at least, nausea. There is also usually a moderate fever, some leukocytosis, and definite localized tenderness to palpation over the walled-off appendix, with rebound tenderness which denotes definite peritoneal irritation. And finally, there will, in a case of an appendiceal abscess, be greatly reduced bowel sounds, both in volume and in frequency. In fact, the bowel sounds are often entirely absent.

In the case presented there was no history at all suggestive of an inflammatory lesion within the abdomen. A thorough examination of the material which "seemed to be pus" would readily have disclosed its true nature. Finding an intra-abdominal mass which contains sebaceous material could hardly fail to suggest a dermoid cyst, especially in a female patient.

Discussion by C. F. Fletcher, M.D. Sunman, Ind.

This girl of 18 years was rather young to have a *pseudomucinous ovarian cyst*, but that seems to me to be the most probable diagnosis. She may have been precocious and developed rather early in life.

Its recurrence, with no increased leukocyte count or fever, and having pushed the uterus to the left with no pain, seems conclusive.

A *dermoid cyst* might be thought of, but there should have been some evidence of remnants of hair, teeth, etc.

Further evidence in the case would be the lack of extensive adhesions.

Discussion by J. E. Fraser, M.D. Port Elgin, Ont., Can.

In this problem I should want to know what was found on examining the fluid in the mass. Such examinations should have been made by the man who first operated. It could be an *ovarian cyst*, though it is hardly likely it would be so high up, and pus would hardly be found.

(Continued on page 115)

Clinical Notes and Abstracts

Insulin in Mental Deficiency

A Case Report

A YOUTH of 13 years, who since birth had been mentally deficient, was given insulin injections for more than a year, with marked improvement in his mental and physical condition.

He was born in April, 1927, of healthy, and intelligent parents, and nothing in the family history appears to have any bearing on his mental deficiency. There is no evidence of syphilis in the family. His older brother is mentally normal and helps support himself in business.

The patient's birth was normal in every way, but an examination at the age of seven months revealed marked rickets, which was confirmed by an x-ray examination. He was then given cod-liver oil and supplementary feedings. His teeth were cut at the usual time, but both the primary and secondary teeth showed marked lack of calcium, and decayed extensively and rapidly.

He did not talk until he was three years old, nor walk until he was four. During the first eight years of his life he had difficulty in maintaining his balance on arising to his feet. At 8 he was given a bicycle, but was wholly unable to use it. Because of his evident weakness and poor physical condition, he was not able to attend public school, so he learned very little during the first 10 years of his childhood. He came under my care in January, 1940.

Examination: Height, 4 feet 10 inches; weight, 69 pounds (normal for sex and age, 88 pounds); the heart, lungs, and kidneys were normal; his station was unsteady and the knee jerks were somewhat exaggerated; his pupils were equal and reacted to light and distance. No other defects were found in the cranium or torso. His muscles were small and weak. His expression was that of placid stupidity, and he was listless and quiet. No evidences of syphilis were seen. His cranium was markedly dolicocephalic (cranial index, 74).

For several years he had been attending a private school for mentally deficient children, where he was generally docile and amiable. He had learned to write neatly and to read a little; his arithmetic was almost nil (he could not add more than two plus two); his span of attention was short. His mother said that he was gentle and affectionate, was passionately fond of fast, lively music, and that his sense of rhythm was above normal. His slender build and active rhythmic sense suggested the Lorraine type of pituitarism.

Noting his malnourished condition, I suggested the use of insulin and increased carbohydrate feeding, and he received 10 units of insulin, twice a day, for 13 months, with no shock reactions. There was no thought of helping his mental condition by this treatment.

He soon began to increase in weight, and his mental attitude in the school room improved. He was much more cooperative and could balance himself better, so his bicycle was brought out and, after a lesson or two, he sped away joyously. He became livelier and ceased playing with children of 6 years, choosing playmates nearer his own age.

At the end of a year, this patient had grown 3 inches in height and had gained 20 pounds in weight (to 89 pounds: average for sex and age, 99 pounds), having gained, in the year, 9 pounds *more* than the average lad is supposed to gain without the benefit of insulin. His whole expression and behavior had changed to one of more normal intelligence. Simply adding 20 pounds cannot entirely account for the mental improvement in this case.

Purves Stewart wrote that insulin acts as a hormone and influences other endocrine glands, and that it also stimulates the terminal motor and sympathetic fibers, which explains its beneficial actions in myasthenia. The principal of the school was impressed with the mental improvement in the boy and volunteered the statement: "He does not whine any more; does not burst into tears if thwarted or teased; has shown greater concentration power; is more aggressive and applies himself to his tasks better; is thoughtful and helpful; can be depended upon to follow directions; and remembers how to do them."

ROBERT L. PITFIELD, M.D.

Germantown, Pa.

I subscribed to CLINICAL MEDICINE several years ago to get rid of a magazine sales-girl. I wish my other investments had turned out as well. I would not be without it now for anything.—T. B. P., W. Va.

Skin Test for Pregnancy

ACCORDING to the *Chicago Tribune* (which is generally accurate) for March 14, 1941, Dr. Frederick H. Falls, of the University of Illinois College of Medicine, and his coworkers, have devised a skin test for pregnancy which can be read within one hour, and is as accurate as the Aschheim-Zondek test (98 percent), though much cheaper.

The test fluid consists of equal parts of *colostrum* and physiologic salt solution, with a preservative. Of this, 0.02 cc. is injected intradermally. If the woman is pregnant, nothing happens; if not, an area of redness from one to two inches in diameter appears around the point of injection in from 30 minutes to an hour, and vanishes after four or five hours.

If this test works out satisfactorily, it will be a big advance in the diagnosis of pregnancy.

Biologicals in Severe Pertussis

WHOOPING cough in infants is a serious disease; if bronchopneumonia is a complication, the death rate mounts to 40 percent. Convulsions give a very high mortality rate, also.

The intranasal instillation of a specific soluble antigen (Topagen), 5 drops in each nostril every other day for 5 doses; the subcutaneous injection of Krueger's undenatured pertussis bacterial antigen (UBA), 6 doses, increasing from 0.25 to 1.5 cc., with 0.1 cc. intradermally; and the subcutaneous injection of detoxified antigen, 2 cc. daily for 5 days, were the three biological methods of treatment used in 102 children. There were 14 deaths among these severely ill youngsters. The morbidity and mortality rate was the same whether one or another of the above products was used.

Serum therapy has been proved to be of great value, especially if the serum is taken from adults who have had pertussis or who have received injections of Sauer's vaccine for a period of a year. Serum is readily obtained from the nearest serum center (Michael Reese Hospital, Chicago, and such state serum centers as that at Des Moines, Iowa, which is operated by the state department of health), and commercial firms are now offering serum prepared for immediate injection, which may be given intramuscularly or intravenously.—PASCAL F. LUCCHESI, M.D., and NATHANIEL GILDERSLEEVE, M.D., in *Penn. Med. J.*, Nov., 1940.

Psychiatric Definitions

A *"normal" person* is one whose thoughts, feelings, and actions are not so badly distorted that he becomes a problem to the community (or, perhaps, to his family).

A *psychoneurotic* person is one whose struggles to adapt his desires to his abilities have made him ill, but who still retains his hold on the world of objective reality.

A *psychopathic* person is one who has largely or wholly retired from the world of objective reality, and lives in a subjective world of phantasy and illusion.

MEYER SOLOMON, M.D.

Chicago, Illinois

Geriatics: A Symposium*

THE treatment of the aged calls for tact, sympathy, and consideration on the part of the physician. The old person is frequently depressed and impatient with the slow results obtained. He is often garrulous, readily fatigued, apprehensive, nervous, suspicious, resolute in his preconceived notions of diagnosis and treatment, and unduly anxious concerning his bowels. He may overeat, but more often uses a diet that is unnecessary, restricted, and inadequate. The waning of sexual powers causes concern, particularly in men.

A routine of living that encourages functional activity of mind and body, postpones the advent of morbid old age. "There is more danger, to the individual, of rusting out than of wearing out." *Keep the patient occupied and out of bed.* Alcohol and tobacco, in moderate quantities, do not curtail life. Do not attempt sexual rejuvenation, but rather stress the importance of hobbies and interest in intellectual matters.

Medicinal therapy: Avoid drastic treatment. Bromides, barbital, and digitalis should be used judiciously, as they may induce psychoses which are mistaken for the mental aberrations incident to brain changes in the senile. Lubricating oils and enemas should be used, rather than cathartics. Do not correct inconsequential physical defects. Impress the elderly patient with the facts that moderation in all things, sobriety, self-control, and calmness are conducive to a happy, useful, and prolonged life.

T. A. WATTERS, M.D.

New Orleans, La.

Symptoms of Old Age

The chief complaints of the old may be referred to these systems, in the following order of frequency; (1) Nervous system; (2) digestive system; (3) circulatory system; and (4) locomotor system. Gastric complaints often have a cardiac origin.

A man may be old at 55, or in relatively good health at 70; *old age cannot be reckoned in years.*

I. L. ROBBINS, M.D.

New Orleans, La.

Nervous System Disturbances

Dizziness, slowing and harshness in speech, tremor, chorea, convulsive phenomena, bladder disorders, paraplegia, and apoplexy are physical disturbances of senility.

Arteriosclerotic changes are difficult, if not impossible, to distinguish from senile reactions. The arteriosclerotic reaction may be diffuse, and thus fully simulate the senile affair. The prodromal symptoms may be of years' standing and precede the more dramatic disabling disorders. Headache, buzzing in the ears, fainting spells, or dizziness occur some time before convulsions, hemiplegias, hemianopsias, aphasias, or apraxias. Laughing and crying spells indicate involvement of the thalamus.

Treatment: Senility becomes a disease only as a result of sudden cessation of the ordinary attractions of life. Patients should be kept interested and stimulated in a way that is commensurate with their mental and physical ability. Alcohol is to be avoided, except occasionally as a stimulant or appetizer, *Barbiturates* are the sedatives of choice, as they are quickly eliminated. Bromides should be avoided, as they cause cumulative, toxic effects. A warm bath and warm drink before retiring may cause sufficient relaxation without drugs.

*New Orleans Med. & Surg. J., Oct. 1940

The cardiorespiratory test of Frost almost invariably detects myocardial weakness.

Transient lowering of blood pressure may produce thrombosis in the coronary, cerebral, or visceral arteries, and the use of nitrites or similar drugs, in older persons, may be followed by serious consequences. A patient with atheromatous arteries requires a greater pressure to maintain adequate circulation than does a normal person, and in such an individual a systolic pressure as high as 210 mm. must be considered normal.

Many aged persons suffer from constipation and diverticulosis of the colon. Agar agar, mineral oil, and the formation of a routine habit of bowel evacuation, with the assistance of glycerine suppositories or small enemas, can overcome long-standing costiveness.

Diarrhea in the aged often masks a fecal impaction in the rectum. A hydrogen peroxide enema, followed by one of oil and later by one of soap suds, often obviates the need of digital or instrumental removal of the impaction.

Many aged persons suffer from bronchiectasis, relief of which is greatly aided by instillation of Lipiodol into the lung. This is easily accomplished by slowly dropping the solution into the throat, along the lateral edge of the tongue base.

Thyroid therapy often results in marked clinical improvement, as many elderly persons have a low metabolic rate.

Apparent senile dementia may be caused by poor cerebral circulation due to myocardial weakness. Digitalization and restricted physical exertion may completely relieve the condition. Sedatives, even if administered for a short time only, may also cause a simulation of dementia.

A gallstone may rupture into the duodenum with little or no pain, and cause obstruction later. Cystocele and prostatic enlargement result in cystitis, which should be treated.

A. E. Eustis, M.D.

New Orleans, La.

Modern Knowledge of Measles

Etiology: A filterable virus is the cause of measles.

Cause of death: Pneumonia is found in 90 percent of fatal cases, and is of the interstitial or bronchial type.

Diagnostic signs: (1) *Meunier's sign:* From the fourth or fifth day after infection, repeated weighings may reveal a progressive loss of weight, which continues up to the early stages of the onset; (2) a *febrile catarrhal attack,* possibly accompanied by a *fleeting* rash, may occur within a few hours after exposure, and is followed by measles in the usual time; (3) *leukopenia* is found only during the febrile stage and persists for 2 days; *leukocytosis* occurs during the incubation period and at any time that bacterial complications occur; a *normal leukocyte count* is found after the first two days of fever; (4) *Koplik's spots* are *tiny,* pin-point, bluish-white specks on a red base, usually found opposite the second premolar tooth on the inner surface of the cheek. These spots can be removed only with difficulty, and are thus distinguished from thrush or milk particles.

The exanthem always affects the area around the mouth, which is pale and unaffected in scarlet fever. *German measles* (rubella) presents trifling catarrhal symptoms, no Koplik's spots are present, and the suboccipital nodes are frequently enlarged. Faint staining or pigmentation is left after the measles rash disappears.

Aspirin, taken for a cold, may produce a rash resembling measles.

Prevention of Measles

	Days after Exposure		
	One to Five		Six to Nine
Serum	Prevention	Attenuation	Attenuation Only
Convalescent	5 cc.	2.5 cc.	5 cc.
Adult Immune	10 cc.	5.0 cc.	10 cc.
Placental Extract	3 to 4 cc.	2.0 cc.	4 cc.

Treatment: Dover's compound checks cough, aids perspiration, and secures sleep. Small doses of sulfanilamide are given prophylactically (7 to 30 grains daily, depending on age).—E. R. Harries, M.D., and M. Mitman, M.D., in "Clinical Practice in Infectious Diseases" (The Williams & Wilkins Company, Baltimore).

[Serums may be obtained from State Boards of Health, Hospital Serum Centers, et cetera; placental extract (immune globulin) from any medical supply house.—Ed.]

Indigestion in Elderly Persons

Gastrointestinal symptoms are common in old age, but *true gastro-intestinal disease is relatively uncommon.* Old people show changes in the salivary, gastric, and pancreatic secretion, with decreases in the quantity of secretion and amount of enzymes. Despite the diminution in secretion, the secretory mechanism is capable of response under adequate stimulation. *Restrictions should not be imposed on old peoples' choice of foods,* as fear of inadequate digestion of carbohydrate, protein, and fat are not warranted.

Treatment: Bitter medications, wines, alcohol, vitamin B complex (which increases appetite, but does not cause an increase in gastric acidity), and the oral use of dilute hydrochloric acid.— J. Meyer, M.D., in *J.A.M.A.,* Dec. 14, 1940.

Examination of the Foot and Leg

Pain on pressure over the tibia reveals periostitis. This may indicate syphilis, osteomyelitis, or traumatic periostitis caused by muscle pull on its periosteal attachment. Note whether any tenderness is bilateral, and whether it is accompanied by local heat. Any bony swelling, even though slight, demands study. Pitting on pressure along the length of the tibia may indicate a circulatory or nephritic disturbance.

A difference in color of the feet, when hanging down and elevated, hints at an abnormal peripheral circulation, a good test of which is to note how rapidly the color returns to normal after deep pressure with the finger.

Palpate the foot for areas of swelling, heat, or tenderness, and any signs of synovitis from chronic strain, as from weak foot or early arthritis. The lateral ligaments at the ankle are seldom painful

on pressure except after severe injury. Calluses indicate abnormal use of the foot. If present under each of the metatarsal heads, they are pathognomonic of limited dorsal flexion at the ankle; if on the lateral side of the fifth metatarsophalangeal joint and the dorsal surface of the first interphalangeal joints of the two outer toes, they are produced by pressure of the foot against the shoe, resulting from pronation of the foot.

The higher the heel, the less movement there is at the mediotarsal joint. The ankle should be capable of being flexed dorsally to an angle of 85 degrees.—J. J. NUTT, M.D., in *Ann. Int. Med.*, Dec., 1940.

Pneumonia in the Aged

PNEUMONIA, often called the friend of the aged, is clinically quite different for the same disease in the middle-aged or young. It is usually of the broncho or lobular type; often is *not associated with fever or leukocytosis;* and the physical signs may be hidden by emphysema. An x-ray examination of the chest will frequently establish the diagnosis. Hypostatic pneumonia is common after operation or fracture. To prevent it, the patient's position should be changed as often as possible.

Treatment: Diathermy treatments through the affected area are beneficial. Sulfapyridine should be used, in *small* doses.—A. EUSTIS, M.D., in *New Orleans Med. & Surg. J.*, Oct., 1940.

Vitamin Deficiency and Abdominal Distress

THE chief symptoms of vitamin deficiency are: (1) a feeling of heaviness and distention in the abdomen, with a marked increase in gas formation; (2) borborygmi with splashing, gurgling noises; (3) belching and flatulence; (4) abdominal uneasiness and pain, which varies in intensity from mild to definite cramps, localized in the umbilical region; (5) nausea after meals; and (6) anorexia. Constipation is often present, although the movements may be regular with formed stools; if the fat or roughage intake is high, diarrhea appears.

These patients are usually regarded as "neurotics," and are treated for gastritis, cholecystitis, chronic appendicitis, peptic ulcer, or "spastic colitis." This form of deficiency may, of course, be associated with such actual lesions.

The stools (formed, semiformed, or loose) contain large amounts of fatty acids and soaps. In evaluating this factor, it is important to be sure that the daily intake of fat is not excessive (about 80 Gm.), because a normal individual will pass a certain amount of unabsorbed fat if he has eaten a large amount of fatty foods. Pancreatic disease results in larger stools and the fat is mainly in the form of unsplit, neutral fat.

Roentgenologic findings: The small bowel shows irregular, smudged filling of the coils, and deep spasms and peristaltic contractions may be observed, both fluoroscopically and roentgenographically. Instead of the smooth, continuous filling, isolated coils are found, and there are variations in the contours and caliber of intestinal segments, with dilated and narrow loops. These changes are not diagnostic alone, as they may be present in inflammatory, granulomatous, or neoplastic lesions, and in pancreatic steatorrhea.

Treatment: A diet containing much protein and vitamin-containing foods should be ordered; roughage and residue should be decreased. Soy bean lecithin, in doses of from 10 to 20 Gm. daily, causes increased food absorption.

Mild astringents, such as colloidal aluminum hydroxide or bismuth subgallate, tend to relieve inflammation. Liver extract and the vitamin B complex should be given by injection, in large doses, for a long time. Treatment must not be discontinued even after the symptoms have improved, as there is a marked tendency to recurrence. Nicotinic acid and riboflavin are useful.

M. WEINGARTEN, M.D.
New York City.

Early Diagnosis of Rheumatic Fever

THE history of other cases of rheumatic fever in relatives is an important clue.

Fever, low-grade, unexplained, persistent, and occasionally remittent, is an early sign of rheumatic fever; *an afternoon rise may mean rheumatic fever, not tuberculosis.*

An *increased pulse rate* may be a diagnostic aid, if it persists and is not accompanied by some other frank febrile condition, especially if the sleeping or resting heart rate remains rapid. Tachycardia due to excitement or fear disappears when the patient is asleep or at rest. If the pulse rate increases with the fever, and does not decline when the fever decreases, cardiac involvement should be suspected. An increase in cardiac *force* may be found instead of, or earlier than, a rate increase.

Slight or *no weight gain*, in children, or a weight loss, is common in rheumatic fever, even early.

Lassitude, malaise, and fatigability must not be dismissed as "laziness" until tuberculosis and rheumatic fever have been ruled out by a tuberculin skin test, daily temperature readings by the parents, and a chest roentgenogram. *It is not natural for well children who get enough sleep to be tired all the time.*

Changes in disposition, irritability, failure in concentration, awkwardness, tics, and muscle twitchings should be considered as suggestive early signs of rheumatic fever.

Nose bleeds not due to trauma are frequently due to rheumatic fever.—J. L. FOSTER, M.D., in *Penn. Med. J.*, Jan., 1941.

Colds in Children

CHILDREN may become prostrated with coryza, with slight or no cough and perhaps with nausea and vomiting. They frequently have a mild, sometimes a moderate, fever. They may complain of *abdominal pain* about the umbilicus or in the right lower quadrant. The pharynx is normal, mildly inflamed, or may show tonsillitis, or a small amount of mucus may be seen, especially when the uvula is elevated.

The physical examination of the chest may be negative or may show râles over one or both lungs, in which case a diagnosis of "bronchitis" is often made. In the absence of râles, provided there are considerable changes in percussion and ausculta-

tion signs, no diagnosis is made. A negative roentgenogram does not assist clinical interpretation.

Recent research shows that the bronchial mucosa becomes inflamed shortly after a cold or sinusitis appears. Graham has noted that the exposed bronchus, in cases of bronchial fistula, becomes inflamed and its secretion, formerly slight, increases greatly and becomes mucopurulent within a few days.

Treatment: A mild solution, such as ½-percent ephedrine in saline solution, may be used in the nose to prevent accumulation of pus and to keep the sinuses draining freely. No cough medicine should be used which contains a narcotic, as the cough mechanism will be depressed and nasal drainage may be aspirated into the lungs. The child should be kept warm in bed, as severe chilling of the skin may reflexly constrict the bronchi and induce pneumonia, and should be encouraged to cough, as a plugged bronchus leads to lung collapse and atelectasis.—R .T. Devereux, M.D., in *Penn. Med. J.*, Jan., 1941.

Liver for Snake Bite

With reference to the article, "Hypertension and the Liver," in the November, 1940, number of Clinical Medicine, page 393, and the editorial footnote, it is interesting to recall that the natives in some parts of Africa have, for centuries, used raw liver—preferably from the snake involved—for treating snake bite. I have this information on very best authority.

C. Grant Bain, M.D.

Centralia, Wash.

Intravenous Anesthesia in Hysteria

The patient with hysterical aphonia, or other hysterical complaint, should be told, after a *thorough* examination has revealed no physical cause, that he is going to be much improved after treatment. Evipal or Pentothal Sodium is then injected intravenously, in sufficient dose to cause loss of consciousness. When the patient awakens, he is informed that the symptom is gone, or much better. Restlessness, appearing during recovery from the intravenous anesthesia, is readily combatted by giving 0.5 Gm. of Sodium Amytal, intravenously. —H. Livingstone, M.D., in *Anes. & Anal.*, Nov.-Dec., 1940.

Headache After Head Injuries

The person who has received a head injury should be kept quiet in bed, either at home or in a hospital, until no headache appears when he is propped up on pillows. He should then be allowed extra pillows and, if the headache does not return, may sit up in bed for increasing periods each day. The physician should be on the lookout for the patient who declares himself free from headache untruthfully, and should warn all patients with head injury that undue rashness in the early stages is likely to be followed by persistent disability, *chronic headache*, and great unhappiness.—*Med. World (Lond.)*, Dec. 13, 1940.

Diagnosis of Aortic Insufficiency

Normally, the systolic pressure in the arm and thigh are about equal. When both an aortic diastolic murmur and a low diastolic pressure (such as 180/50 or 160/40) are present, one may make a diagnosis of *functional* aortic insufficiency, if the levels of systolic pressure in the arm and thigh are in about the same proportion as normal.

In *organic* aortic insufficiency, the systolic pressure is between 50 and 100 mm. of mercury *higher* in the thigh than in the arm; in *functional* insufficiency, the pressure in the thigh is about the same as, or only slightly higher than, in the arm.

To obtain the blood pressure in the thigh, the cuff is applied to the lower thigh, and the stethoscope is placed in the popliteal space, the knee being somewhat raised to allow the application of the stethoscope.

I have seen cases of cardiac decompensation that presented an aortic diastolic murmur, low diastolic blood pressure, visible superficial arterial pulsation, and cardiac enlargement, that I diagnosed as functional insufficiencies of the aortic valve. The correctness of the diagnosis was proved by the disappearance of the murmur and the restoration of higher diastolic pressure, in those who survived, and by the finding of dilatation of the aortic valve orifice without visible injury to the valve leaflets at autopsy.—S. A. Loewenberg, M.D., in *Ann. Int. Med.*, Dec., 1940.

Ruptured Gallbladder

I was interested in Dr. Brown's report of a case of ruptured gallbladder in Clinical Medicine for December, 1940, page 419, and also a clinical report by Dr. Conrad in the February, 1941, issue, page 54.

I have been professionally fortunate in seeing three verified cases of ruptured gallbladder in my 32 years' experience in general medicine, in a small town with a naturally limited practice.

It seems that a lack of diagnosis may be the reason for the small number of cases reported. I did not realize that the reports were so few.

Case 1:—On December 10, 1912, I was called to see a man who had suddenly collapsed while stooping. He had previously refused to see a doctor because his father and sister had died of cancer, following an exploratory operation, and he fully believed himself to be similarly afflicted. He refused to go to a hospital or be operated upon until December 13,

The ruptured gallbladder which was found at the operation, was complicated by gangrene of the intestines, and several gallstones were recovered from the abdomen. He died during the night following the operation.

Case 2:—On June 8, 1920, a woman who had been suffering some attacks of gallstone colic was preparing to enter a hospital for their removal, when she suddenly collapsed. I saw her immediately and made a diagnosis of ruptured gallbladder. A surgeon was hurriedly called to her home in the country, where the operation was performed and the diagnosis verified.

She had a very stormy convalescence, but is still living in our town.

Case 3:—Near midnight, on February 22, 1927, I was called in consultation in the country to see a woman who was under the care of Dr. Duncan,

of Manchester, for gallstones. She suddenly experienced severe pain which extended over her abdomen, and he feared appendicitis. A diagnosis of ruptured gallbladder was made, and she was hurriedly removed to a hospital in Cincinnati. The surgeon did not verify our diagnosis, but on our insistance he opened the abdomen and found the diagnosis correct. She recovered, after a stormy convalescence, and died some years later in another town, of some disease that caused dropsy.

C. F. FLETCHER, M.D.

Sunman, Ind.

Pruritus Vulvae and Diabetes

PERSISTENT itching of the vulva should arouse a suspicion of diabetes, which is *not ruled out by one or two negative urinalyses.* From two to five urinalyses were made, in a series of patients, before sugar was found; in a few cases, sugar was never found, and the diagnosis of diabetes was not suspected until the blood sugar examination was made. Of 31 patients complaining of persistent or recurrent pruritus vulvae, 26 were diabetic.

The itching is secondary to fungous infection, which is facilitated by the high sugar content of the urine and tissues, and not due to sugar itself, as glucose packs applied to the vulva do not cause pruritus.

Increased thirst and increased excretion of urine were often present, but were not mentioned until asked about.

Treatment: A diet of 60 Gm. of protein, 100 Gm. of fat, and 100 Gm. of carbohydrate is prescribed. One-percent aqueous resorcin packs are applied locally. The husband is advised to wash his penis daily and to use one-percent resorcin packs daily for 30 minutes. Five-percent aqueous gentian violet solution may be painted on the vulva if resorcin fails. Control of the increased blood sugar alone will usually relieve itching.—L. H. WINER, M.D., in *Jour. Lancet,* Dec., 1940.

Abdomino-Pelvic Pain in Women

Right lower quadrant pain may be due to a cecum which is packed with feces; a "tumor" of dough-like consistency is often felt, which may be tender on pressure. A certain amount of cecal distension is often palpable before the onset of menstruation, and the patient may say that she is swollen in both lower quadrants before her periods.

The pain of *chronic appendicitis* is often aggravated before the onset of menstruation, or may exist only at these times. It may be localized in the region of the appendix, or may radiate in different directions—towards the umbilicus, down the right thigh, or into the right lumbar region. When the appendix is adherent to the psoas fascia, the thigh may be suddenly drawn up, from acute pain, while ascending stairs or taking a step during ordinary walking. The pain may be aggravated by jolting in an auto or stamping the right heel.

Left lower quadrant pain: Left iliac pain is usually caused by fecal retention in the sigmoid, and may radiate upward, to the left lumbar region, or down to the left groin. The fecal mass may be palpated during an abdominal examination, while further confirmation may be found on rectal examination. When a hard, fixed mass is felt, it is difficult to distinguish between diverticulitis and malignant disease of the colon. An inguinal hernia may cause ilio-inguinal pain.

Ovarian pain: The ovaries lie deep in the true pelvis and *cannot be felt,* from above, by deep pressure on the lower abdomen (such tenderness is usually due to cervicitis). *The normal ovary is sensitive to pressure.*—F. J. MCCANN, M.D., in *Med. World,* (London), Nov. 1, 1940.

The Seminar

(Continued from page 109)

It might be a "cold" abscess (tuberculous), but in that case one would expect to find some fever, and possibly pain in the back.

Discussion by G. M. Russell, M.D., Billings, Mont.

It is not stated whether this mass was hard or soft, whether it was adherent to the uterus, whether it was movable; nor is there a statement of the character of the drainage or how much there was.

Apparently this was either a *cyst* or a *fibrous tumor,* emanating from the ovary, the broad ligament, ileum, or cecum. The fact that it made its appearance intermittently would perhaps indicate that it was connected with the ileum or cecum, with an opening that intermittently opened and closed. Did the mass disappear after drainage?

I should want more definite information from the pelvic examination; a barium enema with an x-ray study; and perhaps a barium meal, with films made after four, five, and twenty-four hours.

It would have been of interest to know the results of careful pelvic examination before the two operations. I consider that an exploratory operation would be justifiable.

Solution by Dr. Diddle

The mass was a *dermoid cyst of the ovary,* as might have been suspected from the history of multiple recurrences of "pussy" material, or diagnosed by a pre-operative x-ray study of the pelvis, which frequently shows the presence of teeth or a portion of jawbone in the tumor.

Problem No. 4 (Surgical)

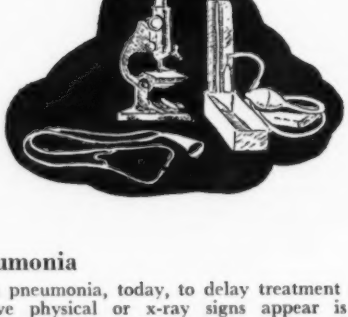
Presented by W. B. Palmer, M.D., Furman, Ala.

A WHITE woman, about 60 years old, came to my office for an examination of a slightly enlarged left inguinal gland. No other glands that could be palpated were enlarged. The blood study furnished no clue to a diagnosis. There was no break in the skin of the left leg and no lesion of the genital organs, but there was a small, sensitive, black mole on the upper part of the thigh.

She was referred to a surgeon, who suggested a biopsy. This was performed, a hasty diagnosis made (which proved to be correct), and a brilliant operation was performed. The patient did not leave the hospital and did not die as a result of the operation. She died within ninety days from the time she first noted enlargement of the gland.

Requirements: Suggest a diagnosis, and any other mode of treatment you would have employed.

Diagnostic Pointers



Diagnosis of Hypothyroidism

● The most important symptoms of hypothyroidism in order of frequency are:

1.—Exhaustion or fatigability *out of proportion to mental or physical exertion,* making it an effort to accomplish tasks which were formerly performed with ease.

2.—Anorexia, either alone or associated with a neurosis, and capricious in character.

3.—Intolerance to cold.

4.—Constipation, leading to abuse of cathartics.

5.—Irritability.

A slow pulse rate, hypotension, loss of weight, and asthenic habitus are frequently-found physical signs. Gastric acidity and basal metabolism rates are also low. All signs and symptoms respond to thyroid therapy.—M. Golob, M.D., in *Rev. Gastroent.,* Nov.-Dec., 1940.

Hysterical Aphonia

● If a patient who is unable to speak above a whisper, except with extraordinary effort, can *cough* in a normal manner and *articulate* perfectly in a whisper, the trouble is probably hysterical aphonia.—John J. Levbarg, M.D., in *E. E. N. & T. Monthly,* Nov., 1940.

Neurasthenic Symptoms

● *A diagnosis of neurasthenia is untenable until urologic examination has ruled out a stricture of the ureter.* Many women, in whom urinary disorders are later shown to exist, complain only of symptoms which are described as neurasthenic; constant nervous or hysterical attacks, paranoid feelings, and depression are frequent.—J. W. Pennington, M.D., in *J.A.M.A.,* Jan 18, 1941.

Intestinal Tuberculosis

● These are the local symptoms of intestinal tuberculosis, in the order of their frequency: (1) Anorexia; (2) crampy pain; (3) nausea; (4) diarrhea; (5) flatulence: (6) vomiting; and (7) tenderness in the right lower abdominal quadrant. Nervousness, insomnia, chills, fever, and failure to gain weight are systemic symptoms. Some cases have no symptoms.—David Salkin, M.D., in *Dis. Chest,* Dec., 1940.

Colostomy Complications

● Colostomy may be a simple operation or it may be followed by (1) peritonitis; (2) intestinal obstruction; (3) hernia; (4) separation of the wound edges; (5) prolapse of the colon through the proximal opening; (6) extension of a carcinoma into the colostomy, or necrosis of the gut due to lack of blood supply.—H. I. Silvers, M.D., in *Am. J. Surg.,* Nov., 1940.

Pneumonia

● In pneumonia, today, to delay treatment until positive physical or x-ray signs appear is unwarranted and hazardous... When giving sulfonamides, frequent and careful *clinical* observation is more important in detecting toxic reactions than are laboratory tests.—Norman Plummer, M.D., in *Digest of Treat.,* Mar., 1941.

Pain of Peptic Ulcers

● Food relieves pain in peptic ulcer and pseudo-ulcer, because of the rise in blood sugar. Pain is not due to the presence of the ulcer itself, since the same pain rhythm may be present without ulcer and ulcer may be present without pain. Ulcer pain often occurs when hypoglycemia is present and disappears when the blood sugar returns to normal levels. The hypoglycemia is brought on by feeding a high-carbohydrate diet. *Ulcer diet:* The ulcer patient is quickly relieved of pain after being put on a *low-carbohydrate,* high-fat, and high-protein diet.—B. P. Sandler, M.D., in *Rev. Gastroent.,* Nov.-Dec., 1940.

Significance of Hypotension

● Normal systolic blood pressure readings should vary between 90 and 120 mm., and the normal diastolic range is from 60 to 80. Pressures higher than 120/80 tend to rise with age; pressures below this figure tend to remain in the lower level throughout life. Persons with normal blood pressure do not show wide variations of pressure (5 to 15 mm.); actual or potential hypertensive patients show a much wider variation. *The normal level is reached at adolescence and does not increase with age.* What has been considered as hypotension is now considered an ideal condition, especially as regards longevity.—N. C. Gilbert, M.D., in *Northwest Med.,* June, 1940.

Vertigo

● Vertigo may be due to wax in the ear canals, otosclerosis, otitis media, quinine or salicylate medication, acute labyrinthitis, or Meniere's disease. Phenobarbital, a salft-free diet, and ammonium chloride, in doses of 30 grains three times daily, should be prescribed regularly. Morphine or hyoscine may be needed in treatment of an acute attack of dizziness.—J. De Swiet, M.D., in *Med. World* (Lond.), Dec. 13, 1940.

Risk to Mothers

● The risk to mothers is greatest with the first child and with the last of many children.—*Hygeia.*

Thumbnail Therapeutics

Hypertension Headache

● Headaches which occur during the early morning hours of sleep, and are associated with hypertension, may be relieved by raising the head of the patient's bed (on kitchen chairs, for example) 18 inches. These headaches are not due to hypertension alone, as the blood pressure is lowered during sleep and rest, so the horizontal position may be the cause. Most patients sleep comfortably in such beds, but some require a hard pillow at the foot of the bed to brace their feet against. Orthostatic hypotension or tachycardia, and associated symptoms, have also been relieved dramatically by the use of such a position.—E. V. ALLEN, M.D., in *Proc. Staff Meet. Mayo Clinic*, Aug. 14, 1940.

"Cold" Vaccine in Facial Paralysis

● The injection of "cold" or catarrhal vaccine, in increasing doses, causes many cases of Bell's palsy or facial paralysis to clear up in three weeks or less. The vaccine contains *M. catarrhalis, B. influenzae, B. Friedlander, Streptococcus hemolyticus* and *viridans, Staphylococcus albus* and *aureus*, and *pneumococci*, and is made by all leading pharmaceutical houses. The initial dose is 0.2 cc.; this is increased by 0.2 cc. every two or three days.—J. V. CONNOLE, M.D., in *Penn. Med. J.*, Jan., 1941.

Pain on Ejaculation

● The patient who gives a history of pain or a burning sensation in the perineum or rectum at the moment of ejaculation, and in some cases for several hours afterward, usually has a *stenosis of the ejaculatory ducts*. The treatment is to dilate the ducts with bougies, passed through a urethroscope.—H. A. R. KREUTZMANN, M.D., in *J.A.M.A.*, Oct. 26, 1940.

Tobacco Blindness (Amblyopia)

● Thiamin chloride (vitamin B_1) treatment results in a marked improvement in tobacco amblyopia.—*E. E. N. & T. Month.*, Dec., 1940.

Vitamin B Deficiency

● The "encephalopathic syndrome," characterized by stupor, cogwheel rigidities of the extremities, and uncontrollable grasping and sucking reflexes can be cured, in most cases, by giving large doses of nicotinic acid and thiamin chloride (vitamin B_1).—N. JOLLIFFE, M.D., in *Minn. Med.*, Aug., 1940.

Duodenal Tube Feeding in Peptic Ulcers

● In the treatment of severe peptic ulcers, a duodenal tube should be inserted through the patient's nose and necessary alimentation carried out through it. The patient is allowed to drink gelatine water and cool solution of egg albumin, to relieve thirst. Through the tube are introduced warm milk, one tablespoon of glucose every 2 hours, egg yolks, whole eggs (later), sweet cream, and orange juice (later). Moving pictures, taken through a fluoroscope, show that the stomach is perfectly at rest while the tube is in place.—DRS. MAX EINHORN, I. W. HELD, and H. W. SOPER, in *Rev. Gastroent.*, Sept.-Oct., 1940.

Serum Transfusions

● Human blood serum transfusions may be given without preliminary laboratory typing or compatibility *in the home*, if necessary. No reactions occur if the serum is properly prepared. Obstetric and surgical emergencies are quickly taken care of with such transfusions.—S. O. LEVINSON, M.D., in *J.A.M.A.*, Oct. 5, 1940.

Intestinal Obstruction

● The oral administration of barium sulphate for roentgenologic study will precipitate a considerable number of intestinal obstructions; occasionally the use of barium enemas will cause a complete block. Strong purgatives, given to prepare the patient for roentgenologic study, often cause obstruction. Wangensteen has long emphasized the disasters which follow the incomplete taking of a history, perfunctory physical examination, and too-great dependence on laboratory data in cases of intestinal obstruction—C. P. SCHLICKE, M.D., in *J. A. M. A.*, Oct. 26, 1940.

Sebaceous Cysts

● True sebaceous cysts, of known long standing, such as wens and cysts of the cheeks, have been definitely known to change into basal- or squamous-cell carcinomas. As a precautionary measure, all sebaceous cysts should be removed, especially those that have recurred or are ulcerated.—V. P. BLAIR, M.D., in *Miss. Valley Med. J.*, July, 1940.

Hemophiliac Bleeding

● The intravenous injection of oxalic acid, in from 3 to 6 mg. doses, causes a marked, temporary decrease of the coagulation time in hemophiliacs. Its use, along with multiple blood transfusions, is warranted in attempting to control bleeding in hemophilia.—R. C. PAGE, M.D., in *Ann. Int. Med.* July, 1940.

THE DOCTOR'S STUDY

New Books

Any book reviewed in these columns will be procured for our readers if the order, addressed to CLINICAL MEDICINE, Waukegan, Ill., is accompanied by a check for the published price of the book.

The glory of the world would be buried in oblivion had not God, as a remedy, conferred on mortal man the benefit of books.—RICHARD DE BURY, *in "Philobiblon" (1345).*

The Pharmacological Basis of Therapeutics

Goodman and Gilman

THE PHARMACOLOGICAL BASIS OF THERAPEUTICS: A Textbook of Pharmacology, Toxicology, and Therapeutics, for Physicians and Medical Students. *By* LOUIS GOODMAN, M.A., M.D., *Assistant Professor of Pharmacology and Toxicology, Yale University, School of Medicine; and* ALFRED GILMAN, PH.D., *Assistant Professor of Pharmacology and Toxicology, Yale University, School of Medicine. New York: The Macmillan Company. 1941. Price, $12.50.*

THE authors have done a service to the physician in rendering easily available the scientific facts that are now known concerning the various drugs that he may use in practice. Full details are given on even the newest of medicines, including those just commercially produced, which are not often found in a text.

The emphasis throughout is on the *clinical use* of drugs. Recent advances in clinical and laboratory practice have made it necessary to revise or discard many traditional beliefs. The tone of the book is scholarly, but not pedantic. For those physicians who find time to read more than the mere minimum, the discussions which preface each section are recommended, as they summarize the current views in physiology and the effect of drugs on function and structure.

Neuroses in War

Miller

THE NEUROSES IN WAR. *By Several Authors;* EMANUEL MILLER, M.A. (CANTAB.), M.R.C.P., *Editor, with a Concluding Chapter by* H. CRICHTON-MILLER, M.D., F.R.C.P. *New York: The Macmillan Company. 1941. Price, $2.50.*

THE lessons learned in World War No. 1 have been digested in the minds of those physicians who watched the soldiers go to pieces mentally under its stress. "Shell shock" and other catchall names have been abandoned and a definite attempt made to place this knowledge on a more rational and more readily studied basis.

Most of the contributors are psychiatrists connected with the Tavistock Clinic. Their contributions are brief and well written. They feel that a high incidence of neuroses may be expected, both in military and civil life, and wish to place their experience at the service of army medical officers and civilian medical men.

Full details are given of the mode of onset of war neuroses, clinical case studies and their relationships, the differential diagnosis, treatment of neuroses in the field, suggestion and hypno-analysis in treatment, and other psychotherapeutic methods.

Drug Encyclopedia

Gutman

MODERN DRUG ENCYCLOPEDIA AND THERAPEUTIC GUIDE. *By* JACOB GUTMAN, M.D., PHAR.D., F.A.C.P., *Director, Brooklyn Diagnostic Institute; Professor Clinical Chemistry, Jersey City College of Pharmacy; Instructor of Medicine, New York Post-Graduate Medical School and Hospital; etc. New York: New Modern Drugs. 1941. Price, $7.00.*

THE U. S. Pharmacopeia is invaluable, but the modern physician who would confine his medicinal armamentarium to the products it contains would be insuperably handicapped, for the extrapharmacopeial (but entirely *ethical*) remedies now available far outnumber the "official" ones.

In this volume, the busy doctor will find brief, but adequate, descriptions of every ethical, nonpharmacopeial remedy now currently offered by the pharmaceutical manufacturers of the United States, arranged in alphabetic order, and also grouped under various headings (hypodermic medicaments; allergens; biologicals; etc.). A "Therapeutic Index" lists all of the remedies which are in common use for the treatment of various disease states. There is also a Manufacturers' and Distributors' Index, showing all the nonpharmacopeial products of each firm, and a Drug and General Index, for quick reference, *printed on pink paper.*

Those who have the first edition of this book will be eager for the second and completely revised edition. Those who do not, have a treat in store, for it seems safe to say that there is no other single volume available that will give every active clinician so much valuable and necessary information for his daily work—full details about any and every ethical pharmaceutical preparation (1,650 pages)—at a rate of more than 200 pages per dollar.

Gastro-Enterology

Portis

DISEASES OF THE DIGESTIVE SYSTEM. *Edited by* SIDNEY A. PORTIS, B.S., M.D., F.A.C.P., *Associate Clinical Professor Medicine, Rush Medical College of the University of Chicago; Attending Physician, Michael Reese Hospital, etc., Chicago, Illinois. Philadelphia: Lea & Febiger. 1941. Price, $10.00.*

THIS book had the advantages and disadvantages of a compilation—advantages of the highly elaborated knowledge of close specialists, and disadvantages of lack of unified approach. The editor is a gastro-enterologist of national reputation. The fifty contributors have been carefully selected. Each has made a special study of that branch of the subject which he discusses. At the same time each has had a sufficiently broad clinical experience to justify his contribution.

Especial emphasis is placed on those contributory factors

which produce gastrointestinal symptoms, and at the same time it offers a full discussion of each of the diseases of the gastrointestinal tract, their diagnosis and their treatment.

Many topics are covered for the first time in a work of this character, including the gastrointestinal manifestations of organic neurologic disease and of diabetes, gout, and arthritis.

The general practitioner will find this book, not only a useful reference work, but valuable for its clinical pictures and diagnoses of diseases and for its therapeutic approach to the problems that he meets in his every-day practice.

New International Clinics

Piersol

THE NEW INTERNATIONAL CLINICS; Original Contributions, Clinics, and Evaluated Reviews of Current Advances in the Medical Arts. *Edited by* GEORGE MORRIS PIERSOL, M.D., *Professor of Medicine, Graduate School of Medicine, University of Pennsylvania, Philadelphia. Volume IV, New Series Three; 1940. Philadelphia, Montreal and New York: J. B. Lippincott Company. Price, $3.00 for current year; $5.00 for back years.*

UNLIKE the preceding volumes of the New International Clinics, this December issue is a distinct disappointment. For the most part, it is a collection of rare cases and papers on technics used by internists.

Smyth reviews the recent literature on the treatment of perforated appendicitis well and clearly. Spinal anesthesia has been used for obstetric patients during a period of 11 years by Fraser, who highly recommends a *small* dose of Novocaine (procaine) crystals as a safe and efficient anesthetic, especially for those patients who cannot take an inhalation anesthetic.

Urbach reviews 452 ward patients with asthma, from the statistical standpoint; treatment is dismissed in 4 paragraphs, none of which give any concrete points.

Office Urology

Pelouze

OFFICE UROLOGY, with a Section on Cystoscopy. *By* P. S. PELOUZE, M.D., *Assistant Professor of Urology, University of Pennsylvania; Consulting Urologist, Delaware County Hospital, et cetera. 443 Illustrations; 19 in Color. Philadelphia and London: W. B. Saunders Company. 1940. Price, $10.00.*

PELOUZE is intellectually honest—a rare virtue in medical (and other) authors. He stresses the advantages and disadvantages of various methods of diagnosis and treatment, without undue praise or overcondemnation.

His discussion of urologic roentgenography should be read by those who feel that the x-rays "can do no wrong."

Office technic, both medical and surgical, is well described and is often illustrated. A color plate of urethroscopic appearances is of great value. There are many illustrations of the bladder wall, affected by various conditions, as seen through the cystoscope. *Treatment is completely and profusely described.*

In general or surgical practice, this book will be frequently referred to and enjoyed for its many practical points.

Broadway Stomach

Montague

BROADWAY STOMACH. *By* JOSEPH F. MONTAGUE, M.D. *New York: Simon and Schuster.* 1940. *Price,* $2.00.

THE author of this volume has written books on medical subjects for laymen (of which this is one), which are considerably more sound and sensible than most such writings.

In this one he discusses the various causes of the psychic strains and conflicts which are the basic cause of most of the disorders of the digestive tube which are now so prevalent, including socalled mucous colitis and peptic ulcer, true and false. Alvarez calls this gastrointestinal instability, "irritable colon," and Montague, with a keener eye to advertising possibilities, "Broadway stomach."

The advice here given, if carefully followed (which is the difficult part of it), should save many people from much discomfort and a good deal of danger, and physicians can safely recommend it to patients who are beginning to experience the intestinal jitters that are often the prelude to something worse.

Tuberculosis and Genius

Moorman

TUBERCULOSIS AND GENIUS *By* LEWIS J. MOORMAN, M.D. *Chicago: The University of Chicago Press. 1940. Price, $2.50.*

FOR many years it has been recognized that there is a definite relation between the fever of tuberculosis and the fire of genius: Not that the disease makes geniuses of ordinary people, but that, if the divine spark is present, the malady may fan it into a flame.

In a scholarly introduction, Dr. Moorman reviews briefly the literature along this line, supplementing it with a considerable bibliography at the end.

And then begins the real body of the work—the beautifully and sympathetically written stories of ten of the greatest of the world-known figures whose genius was augmented by the toxins of the "Great White Plague," including Stevenson, Schiller, Voltaire, Keats, Francis Thompson, and St. Francis of Assisi—throughout which the collateral development of the physical disorder and the superphysical inspiration is clearly traced.

Mechanically, this tall octavo volume, with its superior paper, delightful typography, interesting portraits, and sturdy, dignified modernistic binding will be a joy to bibliophiles, as its contents must be to literateurs, especially those in the medical profession.

As a book for the arm-chair reading table of the thoughful physician, it can hardly be surpassed.

Sex Adjustments

Kirkendall

SEX ADJUSTMENTS OF YOUNG MEN. *By* LESTER A. KIRKENDALL, PH.D., *Associate Professor of Education, Teachers College of Connecticut, New Britain, Conn. New York and London: Harper & Brothers Publishers. 1940. Price, $2.00.*

WITH all the freedom in regard to sex which has appeared since the World War, there are still relatively few young men who really *know* anything about it, except in its crudest biologic manifestations, and their lack of such knowledge is frequently the source of much psychic distress and other serious troubles.

In this small and well-made book, an experienced counsellor of young people sets forth the impersonal results of hundreds of confidential conferences with young men, in such a sane, straightforward, and convincing manner that no rational person can take offense and many will be greatly helped by studying it. The chapter on commonly held misconceptions in regard to sex, and the case histories in Chapter VII are especially valuable. There is a brief glossary and critical bibliography, but (refreshingly) no extensive anatomic details.

Here is a volume that most general clinicians can read with much profit, and can recommend to young men, and to their parents, with confidence.

Electrocardiography

Graybiel and White

ELECTROCARDIOGRAPHY IN PRACTICE. *By* ASHTON GRAYBIEL, M.D., *Instructor in Medicine, Courses for Graduates, Harvard Medical School; and* PAUL D. WHITE, M.D., *Lecturer in Medicine, Harvard Medical School; Physician, Massachusetts General Hospital, in Charge of Cardiac Clinics and Laboratory. 272 Illustrations. Philadelphia and London: W. B. Saunders Company. 1941. Price, $6.00.*

THIS is a complete course in electrocardiography, covering both the normal and abnormal findings and presenting opportunities for actual study. It is also a useful tool in practice, rather than a cumbersome text.

First there are 142 teaching electrocardiograms, which illustrate the normal variations, the types of disorders of rhythm, and the etiologic varieties of heart disease; then 130 which the student may interpret as he chooses, inasmuch as there is no discussion on these sheets. On each facing page appear (1) the clinical history of the patient whose electrocardiogram is shown; (2) a discussion of the features of the gram; and (3) the necropsy findings, when available. Thus controlled practice follows teaching.

Cross indexing permits the physician to consult immediately the electrocardiograms characteristic of any disease.

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